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 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 <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

Part	Description	Price	
Number			
<u>EA9-T6CL-R</u>	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.	\$718.00	
<u>EA9-T6CL</u>	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.	\$994.00	
<u>EA9-T7CL-R</u>	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.	\$794.00	
<u>EA9-T8CL</u>	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.	\$1,383.00	
<u>EA9-T10CL</u>	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.	\$1,778.00	
<u>EA9-T10WCL</u>	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.	\$986.00	
<u>EA9-T12CL</u>	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.	\$1,545.00	
<u>EA9-T15CL-R</u>	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.	\$1,830.00	
<u>EA9-T15CL</u>	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.	\$2,803.00	
<u>EA9-RHMI</u>	C-more EA9 series headless HMI, (2) serial, (1) Ethernet and (2) USB ports, (1) HDMI audio/video out and (1) memory card slot.	\$521.00	
<u>EA9-PGMSW</u>	<i>C-more</i> Windows programming software, USB or free download. For use with <i>C-more</i> EA9 series touch panels. Requires USB or Ethernet connection to touch panel.	\$13.00 on USB, or FREE download	
<u>USB-CBL-AB3</u>	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	
<u>USB-CBL-AB6</u>	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	
<u>USB-CBL-AB10</u>	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	
<u>USB-CBL-AB15</u>	AutomationDirect programming cable, USB A to USB B, 15ft cable length. For use with C-more HMIs, Do-more and Productivity series CPUs and most USB devices.	\$42.50	

C-more Selection Guide & Specifications

Model Specification	6" TFT color w/ base features	6" TFT color w/ full features	7" TFT color w/ base features	7" TFT color w/ full features
Part Number	EA9-T6CL-R	EA9-T6CL	EA9-T7CL-R	EA9-T7CL
Price	\$718.00	\$994.00	\$688.00	\$794.00
Display Actual Size and Type	5.7" TFT color		7.0" TF	FT color
Display Viewing Area	4.54" x 3.40" [115.2 mm x 86.4 mm]		6.00" x 3.60" [152.4 mm x 91.4 mm]	
Weight	1.56 lb [710g]	1.59 lb [720g]	1.46 lb [660g] 1.48 lb [670g]	
Screen Pixel	320 x 24	0 (QVGA)		0 (WVGA)
Display Brightness	280 nits (typ) 350 nits (typ)			its (typ)
LCD Panel Dot Pitch	0.18 mm x 0.18 mm 0.190 mm x 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	esistive, single touch	
Project Memory	26	MB	43	MB
Number of Screens		Up to 999 screens – lin	hited by project memory	
Realtime Clock		-	backed up for 30 days at 25°C	
Calendar – Month / Day / Year		· · · ·	on 60sec (Reference)	
Serial Port 1		15-nin D-sub female -	RS232C, RS-422/485	
Serial Port 2	N/A	3-wire terminal block – RS-485	N/A	3-wire terminal block – RS-485
Serial Port 3	N/A N/A	RJ-12 modular jack – RS-232C	N/A N/A	RJ-12 modular jack – RS-232C
USB Port – Type B		0 High speed (480 Mbps) Type B – Di		
21		os) Type A – for USB device options –		
USB Port – Type A			-	ei – Less man Zuuma at SVDC
Ethernet Port	N/A		10/100 Base-T, auto MDI/MDI-X	[
Ethernet Port - Expansion Module	N/A	EA-ECOM	N/A	EA-ECOM
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			/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, <u>EA-AC</u> , to power the touch panel from a 100-240 VAC, 50/60 Hz power source. Reverse Polarity Protected			
Power Consumption	16.0 W 1.30 A @ 12VDC 0.66 A @ 24VDC			
Internal Fuse			-	
(non-replaceable)		4.	0 A	
Altitude	Up to 2000m (6562ft)			
Operating Temperature	0 to 50°C (32 to 122°F) I	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)	, , , , , , , , , , , , , , , , , , ,
		EC 60068-2-2 (Test Bb, Dry Heat) IEC		k)
Humidity	5-95% RH (non-condensing)			
Environment	For use in Pollution Degree 2 environment, no corrosive gases permitted			
Noise Immunity	(EN61131-2), EN61000-4-2 (ESD), EN61000-4-3 (RFI), EN61000-4-4 (FTB), EN61000-4-5 (Serge), EN61000-4-6 (Conducted) EN61000-4-8 (Power frequency magnetic field immunity) (Local Test)			
			0cm), Impulse 1000V @ 1µs pulse	
Withstand Voltage		1000VAC, 1min. (F	G to Power supply)	
Insulation Resistance		> 10M ohm @ 500VD0	C (FG to Power supply)	
Vibration		IEC60068-2	2-6 (Test Fc)	
Shock		IEC60068-2	-27 (Test Ea)	
Emission		EN55011 Class A (R	adiated 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) IP-65 (not tested by UL) (When mounted correctly)			
Agency Approvals	UL508, E157382, Class 1, Div 2, Groups A, B, C CE (EN61131-2), RoHS (2011/65/EU) CUL Canadian C22.2 CUL Canadian C22.2			
brightness. The lifet temperature usage.	time of the backlight depers s designed to respond to a	the average usage time it ta ds on the ambient tempera single touch. If it is touche	ture. The lifetime will decre	ease under low or high

C-more Selection Guide & Specifications

Model	8" TFT color w/ full features	10" TFT color w/ full features	10" TFT color Widescreen w/ full features	
Specification				
Part Number	EA9-T8CL	EA9-T10CL	EA9-T10WCL	
Price	\$1,383.00	\$1,778.00	\$986.00	
Display Actual Size and Type	8.4" TFT color	10.4" TFT color	10.1" TFT color	
Display Viewing Area	6.71" x 5.03" [170.4 mm x127.8mm]	8.31" x 6.24" [211.2 mm x 158.4 mm]	8.77" x 4.93" [222.7 mm x 125.3 mm]	
Neight	2.93 lb [1330g]	4.19 lb [1900g]	2.43 lb [1100g]	
Screen Pixel	800 x 60	0 (SVGA)	1024 x 600 (WSVGA)	
Display Brightness	310 nits (typ)	310 nits (typ) 280 nits (typ) 240 nits (typ)		
CD Panel Dot Pitch	0.213 mm x 0.213 mm 0.264 mm x 0.264 mm 0.218 mm x 0.209			
Color Scale	65,536 colors			
Backlight Average Lifetime*	50,000 hours @ 25°C			
Touch Panel Type**		Four-wire analog resistive, single touch		
Project Memory		43MB		
Number of Screens		Up to 999 screens – limited by project memory		
Realtime Clock	Realti	me clock built into panel, backed up for 30 days a	t 25°C	
Calendar – Month / Day / Year		Yes - monthly deviation 60sec (Reference)		
Serial Port 1	15-pin D-sub female – RS232C, RS-422/485			
Serial Port 2	3-wire terminal block – RS-485			
Serial Port 3	RJ-12 modular jack – RS-232C			
JSB Port – Type B	USB 2.0 High speed (480 Mbps) Type B – Download/Program – Max. cable length 15-feet			
JSB 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			
Ethernet Port	10/100 Base-T, auto MDI/MDI-X			
Ethernet Port - Expansion Module	EA-ECOM			
Audio Line Out	3.5 mm mini jack – requires amplifier and speaker(s)			
Mic In (Future)	3.5 mm mini jack			
SD Card Slot	1 slot supports max 2GB (SD,) max 32GB (SDHC)			
HDMI Video Out		N/A		
Supply Power		ss2 and SELV (Safety Extra-Low Voltage) Circuit a power the touch panel from a 100-240 VAC, 50/60		
		0 W	17.0W	
Power Consumption		୭ 12VDC ୭ 24VDC	1.42A @ 12 VDC 0.71A @ 24 VDC	
nternal Fuse (non-replaceable)	0.10 A	6.3 A	0.117 @ 24 900	
Altitude		Up to 2000m (6562ft)		
Dperating Temperature	0 to 50°C (32 to 122°E) Maximum sur	rounding air temperature rating: 50°C (122°F) IEC	60068-2-14 (Test Nb. Thermal Shock)	
	, ,	to +60°C (-4 to +140°F) IEC 60068-2-1 (Test Ab,	, ,	
Storage Temperature		2 (Test Bb, Dry Heat) IEC 60068-2-14 (Test Na, T		
Humidity		5-95% RH (non-condensing)		
Environment		Pollution Degree 2 environment, no corrosive gase		
Noise Immunity	(EN61131-2), EN61000-4-2 (ESD), EN61000-4-3 (RFI), EN61000-4-4 (FTB), EN61000-4-5 (Serge), EN61000-4-6 EN61000-4-8 (Power f0requency magnetic field immunity)			
	(Local Test) RFI, (145MHz, 440Mhz 10W @ 10cm), Impulse 1000V @ 1µs pulse			
Nithstand Voltage	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1000VAC, 1min. (FG to Power supply)	<u></u>	
nsulation Resistance	> 10M ohm @ 500VDC (FG to Power supply)			
/ibration	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)			
brightness. The lifetime temperature usage.	e of the backlight depends on the a esigned to respond to a single tou		ill decrease under low or high	

C-more Selection Guide & Specifications

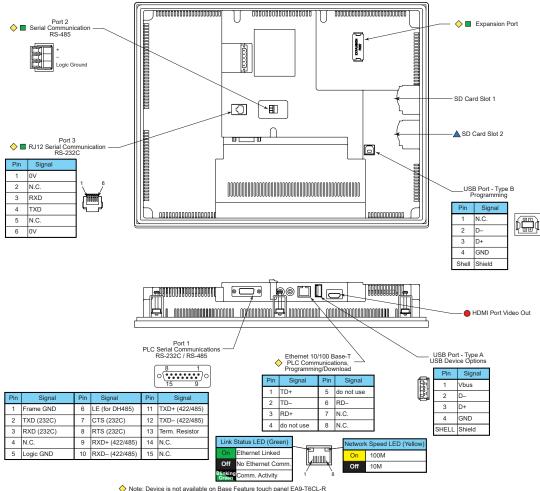
3-wire terminal block – RS-485 RJ-12 modular jack – RS-232C USB 2.0 High spee	11.97" [304.1 mm> 6.46 lb (2930g) 1024 x 76 280 nits (typ)	x 228.0 mm] 6.50 lb [2950g] 68 (XGA) x 0.297 mm	
\$1,545.00 12.1" TFT color 9.69" x 7.26" [246.0 mm x 184.5 mm] 4.89 lb [2200g] 800 x 600 (SVGA) 0.3075 mm x 0.3075 mm 0.3075 mm x 0.3075 mm Realt 3-wire terminal block – RS-485 RJ-12 modular jack – RS-232C USB 2.0 High spee	\$1,830.00 15.0" TF 11.97" [304.1 mm > 6.46 lb (2930g) 1024 x 76 280 nits (typ) 0.297 mm > 65,536 colors 50,000 hours @ 25°C Four-wire analog resistive, single touch 43MB Up to 999 screens – limited by project memory Itime clock built into panel, backed up for 30 days at Yes - monthly deviation 60sec (Reference) 15-pin D-sub female – RS232C, RS-422/485 N/A N/A	\$2,803.00 FT color x 8.98" x 228.0 mm] 6.50 lb [2950g] 68 (XGA) x 0.297 mm 25°C 3-wire terminal block – RS-485	
12.1" TFT color 9.69" x 7.26" [246.0 mm x 184.5 mm] 4.89 lb [2200g] 800 x 600 (SVGA) 0.3075 mm x 0.3075 mm 	15.0" TF 11.97" [304.1 mm x] 6.46 lb (2930g) 1024 x 76 280 nits (typ) 0.297 mm x] 65,536 colors 50,000 hours @ 25°C Four-wire analog resistive, single touch 43MB Up to 999 screens – limited by project memory time clock built into panel, backed up for 30 days at Yes - monthly deviation 60sec (Reference) 15-pin D-sub female – RS232C, RS-422/485 N/A N/A	ET color x 8.98" x 228.0 mm] 6.50 lb [2950g] 68 (XGA) x 0.297 mm 25°C 3-wire terminal block – RS-485	
9.69" x 7.26" [246.0 mm x 184.5 mm] 4.89 lb [2200g] 800 x 600 (SVGA) 0.3075 mm x 0.3075 mm 	11.97" [304.1 mm>] 6.46 lb (2930g) 1024 x 76 280 nits (typ) 0.297 mm > 65,536 colors 50,000 hours @ 25°C Four-wire analog resistive, single touch 43MB Up to 999 screens – limited by project memory time clock built into panel, backed up for 30 days at Yes - monthly deviation 60sec (Reference) 15-pin D-sub female – RS232C, RS-422/485 N/A N/A	x 8.98" x 228.0 mm] 6.50 lb [2950g] 68 (XGA) x 0.297 mm 25°C 3-wire terminal block – RS-485	
[246.0 mm x 184.5 mm] 4.89 lb [2200g] 800 x 600 (SVGA) 0.3075 mm x 0.3075 mm Realt 3-wire terminal block – RS-485 RJ-12 modular jack – RS-232C USB 2.0 High spee	[304.1 mm > 6.46 lb (2930g) 1024 x 76 280 nits (typ) 0.297 mm > 65,536 colors 50,000 hours @ 25°C Four-wire analog resistive, single touch 43MB Up to 999 screens – limited by project memory time clock built into panel, backed up for 30 days at Yes - monthly deviation 60sec (Reference) 15-pin D-sub female – RS232C, RS-422/485 N/A N/A	x 228.0 mm] 6.50 lb [2950g] 68 (XGA) x 0.297 mm 25°C 3-wire terminal block – RS-485	
800 x 600 (SVGA) 0.3075 mm x 0.3075 mm Realt 3-wire terminal block – RS-485 RJ-12 modular jack – RS-232C USB 2.0 High spee	1024 x 76 280 nits (typ) 0.297 mm x 65,536 colors 50,000 hours @ 25°C Four-wire analog resistive, single touch 43MB Up to 999 screens – limited by project memory time clock built into panel, backed up for 30 days at Yes - monthly deviation 60sec (Reference) 15-pin D-sub female – RS232C, RS-422/485 N/A N/A	68 (XGA) x 0.297 mm 25°C 3-wire terminal block – RS-485	
0.3075 mm x 0.3075 mm Real 3-wire terminal block – RS-485 RJ-12 modular jack – RS-232C USB 2.0 High spee	280 nits (typ) 0.297 mm × 65,536 colors 50,000 hours @ 25°C Four-wire analog resistive, single touch 43MB Up to 999 screens – limited by project memory Itime clock built into panel, backed up for 30 days at Yes - monthly deviation 60sec (Reference) 15-pin D-sub female – RS232C, RS-422/485 N/A N/A	x 0.297 mm 25°C 3-wire terminal block – RS-485	
Reals 3-wire terminal block – RS-485 RJ-12 modular jack – RS-232C USB 2.0 High spee	0.297 mm > 65,536 colors 50,000 hours @ 25°C Four-wire analog resistive, single touch 43MB Up to 999 screens – limited by project memory Itime clock built into panel, backed up for 30 days at Yes - monthly deviation 60sec (Reference) 15-pin D-sub female – RS232C, RS-422/485 N/A N/A	25°C 3-wire terminal block – RS-485	
Reals 3-wire terminal block – RS-485 RJ-12 modular jack – RS-232C USB 2.0 High spee	65,536 colors 50,000 hours @ 25°C Four-wire analog resistive, single touch 43MB Up to 999 screens – limited by project memory Itime clock built into panel, backed up for 30 days at Yes - monthly deviation 60sec (Reference) 15-pin D-sub female – RS232C, RS-422/485 N/A N/A	25°C 3-wire terminal block – RS-485	
3-wire terminal block – RS-485 RJ-12 modular jack – RS-232C USB 2.0 High spee	50,000 hours @ 25°C Four-wire analog resistive, single touch 43MB Up to 999 screens – limited by project memory time clock built into panel, backed up for 30 days at Yes - monthly deviation 60sec (Reference) 15-pin D-sub female – RS232C, RS-422/485 N/A N/A	3-wire terminal block – RS-485	
3-wire terminal block – RS-485 RJ-12 modular jack – RS-232C USB 2.0 High spee	Four-wire analog resistive, single touch 43MB Up to 999 screens – limited by project memory time clock built into panel, backed up for 30 days at Yes - monthly deviation 60sec (Reference) 15-pin D-sub female – RS232C, RS-422/485 N/A N/A	3-wire terminal block – RS-485	
3-wire terminal block – RS-485 RJ-12 modular jack – RS-232C USB 2.0 High spee	43MB Up to 999 screens – limited by project memory Itime clock built into panel, backed up for 30 days at Yes - monthly deviation 60sec (Reference) 15-pin D-sub female – RS232C, RS-422/485 N/A N/A	3-wire terminal block – RS-485	
3-wire terminal block – RS-485 RJ-12 modular jack – RS-232C USB 2.0 High spee	Up to 999 screens – limited by project memory time clock built into panel, backed up for 30 days at Yes - monthly deviation 60sec (Reference) 15-pin D-sub female – RS232C, RS-422/485 N/A N/A	3-wire terminal block – RS-485	
3-wire terminal block – RS-485 RJ-12 modular jack – RS-232C USB 2.0 High spee	time clock built into panel, backed up for 30 days at Yes - monthly deviation 60sec (Reference) 15-pin D-sub female – RS232C, RS-422/485 N/A N/A	3-wire terminal block – RS-485	
3-wire terminal block – RS-485 RJ-12 modular jack – RS-232C USB 2.0 High spee	Yes - monthly deviation 60sec (Reference) 15-pin D-sub female – RS232C, RS-422/485 N/A N/A N/A	3-wire terminal block – RS-485	
RJ-12 modular jack – RS-232C USB 2.0 High spee	15-pin D-sub female – RS232C, RS-422/485 N/A N/A		
RJ-12 modular jack – RS-232C USB 2.0 High spee	N/A N/A		
RJ-12 modular jack – RS-232C USB 2.0 High spee	N/A		
USB 2.0 High spee		RJ-12 modular jack – RS-232C	
USB 2.0 High spee	ed (480 Mbps) Type B – Download/Program – Max. d	· · · · · · · · · · · · · · · · · · ·	
•	<u>, , , , , </u> , , , , , , , , , , , , , ,	cable length 15-feet	
· · · · · · · · · · · · · · · · · · ·	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		
	10/100 Base-T, auto MDI/MDI-X		
EA-ECOM	N/A	EA-ECOM	
3.5 mm mini jack – oquires amplifier and speaker(s)	N/A	3.5 mm mini jack – requires amplifier and speaker(s)	
	N/A	3.5 mm mini jack	
		,	
		HDMI Type A Port	
		1024 x 768 (XGA)	
		· · · ·	
1.75 A @ 12VDC			
0.00 A @ 24VDC		y 24VDC	
0 to 50°C (32 to 122°E) Maximum eu	,	60068 2 14 (Test Nb. Thermal Shock)	
. ,			
		/	
	5-95% RH (non-condensing)		
For use in	Pollution Degree 2 environment, no corrosive gases	s permitted	
(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			
1000VAC, 1min. (FG to Power supply)			
> 10M ohm @ 500VDC (FG to Power supply)			
EN55011 Class A (Radiated RF emission)			
NEMA 250 type 4/4X indoor use only UL50 type 4X indoor use only IP-65 indoor use only (When mounted correctly)			
UL508, E157382 CE (EN61131-2), RoHS (2011/65/EU) CUL Canadian C22.2			
	3.5 mm mini jack HDMI Type A Port 800 x 600 (SVGA) 10.2-26.4 VDC Class 2, Use Cl 21.0 W 1.75 A @ 12VDC 0.88 A @ 24VDC 0 to 50°C (32 to 122°F) Maximum su -20 IEC 60068-2 For use in (EN61131-2), EN61000-4-2 (ESD), E El RFI, (14 NEMA s defined as the average usc cklight depends on the amb	3.5 mm mini jack N/A 2 slots support max 2GB (SD), max 32GB (SDHC) HDMI Type A Port N/A 800 x 600 (SVGA) N/A 10.2-26.4 VDC Class 2, Use Class2 and SELV (Safety Extra-Low Voltage) Circuit a a the AC/DC Power Adapter, <u>EA-AC</u> , to power the touch panel from a 100-240 VAC, 50/60 21.0 W 29. 1.75 A @ 12VDC 2.40 A @ 0.88 A @ 24VDC 6.3 A Up to 2000m (6562ft) 0 0 to 50°C (32 to 122°F) Maximum surrounding air temperature rating: 50°C (122°F) IEC -20 to +60°C (-4 to +140°F) IEC 60068-2-1 (Test Ab, (IEC 60068-2-2 (Test Bb, Dry Heat) IEC 60068-2-1 (Test Na, Th 5-95% RH (non-condensing) For use in Pollution Degree 2 environment, no corrosive gase (EN61131-2), EN61000-4-2 (ESD), EN61000-4-3 (RFI), EN61000-4-4 (FTB), EN61000-4-8 (Power frequency magnetic field immur (Local Test) RFI, (145MHz, 440Mhz 10W @ 10cm), Impulse 1000V @ 1 1000VAC, 1min. (FG to Power supply) > 10M ohm @ 500VDC (FG to Power supply) IEC60068-2-27 (Test Ea) EN55011 Class A (Radiated RF emission) NEMA 250 type 4/4X indoor use only UL50 type 4X indoor IP-65 indoor use only UL50 type 4X indoor IP-65 indoor use only UL50 type 4X indoor	

C-more Selection Guide & Specifications

Specification	EA9 Headless HMI		
Part Number	EA9-RHMI		
Price	\$521.00		
Display	No Display		
Weight	0.59 lb [269g]		
Project Memory	82MB		
Number of Screens	Up to 999 screens – limited by project memory		
Realtime Clock	Realtime clock built into panel, backed up for 30 days at 25°C		
Calendar – Month / Day / Year	Yes - monthly deviation 60sec (Reference)		
Serial Port 1	15-pin D-sub female – RS232C, RS-422/485		
Serial Port 2	3-wire terminal block – RS-485		
USB Port – Type B	USB 2.0 High speed (480 Mbps) Type B - Download/Program Max cable length - 15 ft.		
USB Port – Type A	USB 2.0 High speed (480 Mbps) Type A - for USB device options Max cable length - 15ft Bus Power – Less than 500mA at 5VDC		
Supported Touch Screen	ELO™ Single Touch Resistive/SAW, EETI eGalax Single Touch Resistive and pCap Compatible with AutomationDirect Atlas Monitors. See the EA-RHMI user manual for more compatible touchscreen monitors		
Ethernet Port	10/100 Base-T, auto MDI/MDI-X		
Ethernet Port - Expansion Module	<u>EA-ECOM</u>		
Audio Line Out	Audio supported through HDMI connection		
Mic In (Future)	N/A		
SD Card Slot	1 slot support max 2GB (SD), max 32GB (SDHC)		
HDMI Video Out	HDMI Type A Port		
HDMI Supported Resolutions	640 x 480 (VGA) 60Hz 720 x 480 (SD) 60Hz 1024 x 768 (XGA) 60Hz 1280 x 720 (HD) 60Hz With automatic negotiation function for HDMI displays		
Supply Power	10.2-26.4 VDC Class 2, Use Class2 and SELV (Safety Extra-Low Voltage) Circuit and Limited Energy Circuit (LEC), Reverse Polarity Protected		
Power Consumption	12.0 W 1.00 A @ 12VDC 0.50 A @ 24VDC		
Internal Fuse (non-replaceable)	4.0 A		
Altitude	Up to 2000m (6562ft)		
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) –20 to 60°C (–4 to 140°F)		
Storage Temperature	IEC 60068-2-1 (Test Ab, Cold) IEC 60068-2-2 (Test Bb, Dry Heat) IEC 60068-2-14 (Test Na, Thermal Shock)		
Humidity	5-95% RH (non-condensing)		
Environment	For use in Pollution Degree 2 environment, no corrosive gases permitted		
Noise Immunity	(EN61131-2) EN61000-4-2 (ESD): 4kV (Contact Discharge) 2kV/4kV/8kV (Air Discharge) EN61000-4-3 (RFI): 10V/m (80MHz-1GHz), 3V/m (1.4GHz-2.0GHz) 1V/m (2.0GHz-2.7GHz) EN61000-4-4 (FTB): 2kV ,positive/negative, 5kHz(DC Power Port) EN61000-4-5 (Serge): 0.5kV line to line 0.5kV line to earth EN61000-4-6 (Conducted): 10V, 0.15MHz - 80MHz EN61000-4-8 (Power frequency magnetic field immunity): 30A/m (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) 5-9Hz: 3.5mm amplitude, 9-150Hz 1.0G 10 sweep cycles per axis on each of 3 mutually perpendicular axes		
Shock	IEC60068-2-27 (Test Ea) 15G peak, 11ms duration, 3 shocks in each direction per axis, on 3 mutually perpendicular axes		
Emission	15G peak, 11ms duration, 3 shocks in each direction per axis, on 3 mutually perpendicular axes EN55011 Class A (Radiated RF emission)		
Agency Approvals	UL61010, E157382 CE (EN61131-2), RoHS (2011/65/EU)		
	CUL Canadian C22.2		

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C-more Communication Ports



Note: Device is not available on Base Feature touch panel EA9-T6CL-R

Note: Device is not available on Base Feature touch panels EA9-T7CL-R and EA9-T15CL-R

Note: Device is only available on touch panels EA9-T12CL and EA9-T15CL ▲ Note: Device is only available on touch panels EA9-T12CL, EA9-T15CL and EA9-T15CL-R.

Ethernet Port

The Ethernet port has several uses:

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

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

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

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

Expansion Port

The expansion port supports the EA-ECOM 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.

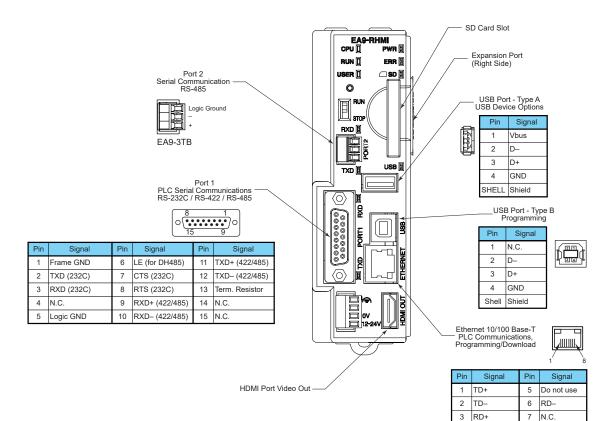
Port 2 - Connect your RS-485 network via Port 2. Port 2 is provided with a 3-wire removable terminal block.

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

HDMI Video Out

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

C-more EA9-RHMI 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.

Expansion Port

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

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 can be used to connect various USB HID (Human Input Device) devices to the panel, such as the following:

- USB touchscreen (ELO[™] Single Touch Resistive/SAW, EETI eGalax Single Touch Resistive and pCap touchscreens)
- USB mouse
- USB keyboard
- USB flash drives (<u>USB-FLASH</u>)
- USB barcode scanner
- USB card scanner

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.

* 500mA maximum current available. Powered USB hub may be required for some devices

Serial Port

8 N.C

do not use

4

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.

HDMI Out Port

<u>EA9-RHMI</u> includes an HDMI Type A port to provide video / audio output to a projector or remote monitor. Supported resolutions are...

- 640 x 480 (VGA) 60Hz
- 720 x 480 (SD) 60Hz
- 1024 x 768 (XGA) 60Hz
- 1280 x 720 (HD) 60Hz

For the latest prices, please check AutomationDirect.com.

1-800-633-0405 For the latest prices, please check AutomationDirect.com **C-more Communication Protocols & Cables**

		Compatibility Table	
PLC Family		Model	Protocols
	SLC 5-/01/02/03	100, 1200, 1400, 1500,	DH485/AIC/AIC+
	MicroLogix 1000, 1	100, 1200, 1400 and 1500	
	SLC 5-/03/04/05 ControlLogix™. Co	mpactLogix™, FlexLogix™	DF1 Half Duplex; DF1 Full Duplex
	PLC-5		DF1 Full Duplex
	ControlLogix, Comp Based	oactLogix, FlexLogix - Tag	DF1 Half Duplex; DF1 Full Duplex
	ControlLogix, Comp	actLogix, FlexLogix -	EtherNet/IP Server
Allen-Bradley	Generic I/Ŏ Messa	pactLogix, FlexLogix - ging pactLogix, FlexLogix - Tag	
Allell-Blauley	Based		
	Micrologix 1100, 14 Ethernet port	00 & SLC5/05, all via native	EtherNet/IP Client
	MicroLogix 1000, 1	100, 1200, 1400,1500 &	
	SLC 5-03/04/05, all	via ENI Adapter	Modbus RTU
	Micro 800 series		Modbus TCP
			DF1 Full Duplex
	Micro 800 series - 1	ag Based	EtherNet/IP Client
Modbus RTU	Modbus RTU device	es	Modbus RTU
Modbus TCP/IF	Modbus TCP/IP dev	vices	Modbus TCP/IP
		90, VersaMax Micro	SNPX
GE	90/30, Rx3i		SRTP Ethernet
	FX Series		FX Direct
Mitsubishi	Q02, Q02H, Q06H,	Q12H, Q25H	Q CPU
lintoubioin	Q, QnA Serial		QnA Serial
	Q, QnA Ethernet C200 Adapter, C50	n	QnA Ethernet Host Link
Omron	CJ1/CS1 Serial, CJ		FINS
Madiaau			
Modicon		113 CPU, AEG Modicon Micro 1-xx, 411-xx, 512-xx, 612-xx	Modbus RTU
Siemens	S7-200 CPU, RS-4	85 Serial 10 CPU, S7-400, S7-1200 CPU,	PPI
	S7-1500; Ethernet	0 0 0, 0, -400, 37-1200 0 0,	Ethernet ISO over TCP
Productivity	all		Productivity Serial
Series	aii		Productivity Ethernet
Do-more	all		Do-more Serial
bo more			Do-more Ethernet
CLICK	all		Modbus (CLICK addressing) Modbus TCP (CLICK addressing)
			K-Sequence
		all	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
	DL205	D2-250/D2-250-1/D2-260/	K-Sequence DirectNET
	DL203	D2-262	Modbus (Koyo addressing)
		D2-240/D2-250-1/D2-260	DirectNET
		using D2-DCM	Modbus (Koyo addressing)
		H2-ECOM/H2-ECOM100	Direct LOGIC Ethernet
		D3-330/330P (Pequires the use of a Data	DirectNET
		(Requires the use of a Data Communications Unit)	
		D3-340	DirectNET
Direct LOGIC	DL305		K-Sequence
		D3-350	
			Modbus (Koyo addressing)
		D3-350 using D3-DCM	Modbus (Koyo addressing)
		D.4.400	K-Sequence
		D4-430	DirectNET
		D4-440	K-Sequence
	DL405	<u>₩</u> +++V	DirectNET
		D4-450/D4-454	K-Sequence
			DirectNET
			Modbus (Koyo addressing)
		All with D4-DCM	DirectNET Modbus (Koyo addressing)
		H4-ECOM/H4-ECOM100	Direct LOGIC Ethernet
	H2-WinPLC (Think	& Do) Live V5.2 or later and	Think & Do Modbus RTU
	Studio any version		(serial port)
		& Do) Live V5.5.1 or later and er	Think & Do Modbus TCP/IP

Cable	Cable	Deles
Description	Part Number	Price
AutomationDirect communication cable, 15-pin male D-sub to 6-pin RJ12, shielded, 9.8ft/3m cable length. For use with C-more or C-more Micro panel and AutomationDirect PLCs with RJ12 ports.	<u>EA-2CBL</u>	\$31.00
AutomationDirect communication cable, 15-pin male D-sub to 15-pin D-sub HD15 male, shielded, 3m/9.8ft cable length. For use with C-more or C-more Micro panel and a DL06, D2-250(-1), D2-260 or D2-262 (bottom port) CPU.	<u>EA-2CBL-1</u>	\$31.50
AutomationDirect communication cable, 15-pin male D-sub to 4-pin RJ11, shielded, 3m/9.8ft cable length. For use with C-more or C-more Micro panel and a D3-340 CPU top or bottom port.	<u>EA-3CBL</u>	\$31.00
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>	\$31.00
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.	<u>EA-4CBL-2</u>	\$32.00
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 an Allen-Bradley Micrologix CPU.	EA-MLOGIX-CBL	\$47.50
AutomationDirect communication cable, 15-pin male D-sub to 9-pin female D-sub, shielded, 3m/9.8ft cable length. For use with C-more or C-more Micro panel and an Allen-Bradley SLC 5/03, 5/04 or 5/05 CPU with DF-1 port.	<u>EA-SLC-232-CBL</u>	\$31.00
AutomationDirect communication cable, 15-pin male D-sub to 25-pin male D-sub, 3m/9.8ft cable length. For use with C-more or C-more Micro panel and an Allen-Bradley PLC-5 CPU with a DF1 port.	<u>EA-PLC5-232-CBL</u>	\$31.00
AutomationDirect communication cable, 15-pin male D-sub to 6-pin RJ45, shielded, 3m/9.8ft cable length. For use with C-more or C-more Micro panel and an Allen-Bradley SLC 5/01, 5/02 or 5/03 CPU with a DH485 port cable.	<u>EA-DH485-CBL</u>	\$30.50
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.	<u>EA-90-30-CBL</u>	\$31.00
AutomationDirect communication cable, 15-pin male D-sub to 25-pin male D-sub, 3m/9.8ft cable length. For use with C-more or C-more 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.	<u>EA-MITSU-CBL-1</u>	\$31.00
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	\$31.00

Example Cables:

