C-more® Quick Start Guide

AUTOMATIONDIRECT.com
3505 HUTCHINSON ROAD
CUMMING, GA 30040-5860

Base Feature STN and TFT displays
- 6" STN grayscale EA7-S6M-R
- 6" TFT color EA7-T6CL-R

Full Feature STN displays
- 6" grayscale EA7-S6M

Full Feature TFT displays
- 6" color EA7-T6CL
- 8" color EA7-T8C
- 10" color EA7-T10C

Full Feature and very large TFT displays
- 12" color EA7-T12C
- 15" color EA7-T15C

General Description

The C-more® series of Touch Panels provides excellent capabilities and expanded features with their enhanced graphical programming software, rugged hardware, and convenient accessories. Engineered into the product design to provide excellent hardware and software are features such as those listed below. Some features are not available on the base feature panels.

- Analog touch screen (no touch cell boundaries)
- Overlapping active devices on the screen
- Screen resolutions up to 1024 X 768 pixels
- Serial RS232, RS422/485 and Ethernet 10/100Base-T communications
- Optional AC/DC Power Adapter (EA-AC)
- Animation of bitmaps and objects
- 4,000 built-in symbols, classic fonts: 6x8, 8x16, 8x32, 8x64, 16x16, 16x32, 16x64, 32x16, 32x32, 32x64, and Windows fonts
- Event Manager to trigger actions based on assigned state changes, schedules, PLC tag names, etc., setup in a database environment. The event can also trigger a sound byte, initiate a screen capture, send a data file (FTP), send an E-mail, etc.
- Select unique background for each screen
- Built-in FTP client/server, E-mail client, and Web server
- Audio output port, stereo – requires amplifier and speaker(s)
- Plenty of memory and methods to get data in/out of the panel
- 65,536 colors for enhanced graphics
- Built-in project simulation, test on PC while developing
- Programming via USB or Ethernet (Ethernet on full feature only.)
- User replaceable bezels on 8", 12" & 15" panels
- PID face plate, trending, alarming and a recipe database
- Trend Data logging
- Internet Remote Access

A table of complete specifications for all touch panels is located on the back of this Quick Start Guide. Touch Panel and accessory dimension and mounting information is also located on the back. Please refer to the individual data sheet inserts that are included with each accessory for additional details.

Accessories (sold separately)

- AC/DC Power Adapter: EA-AC
- Expansion Assembly: EA-EXP-OPT
- CF Card Interface Module: EA-CF-IF
- CompactFlash Memory Card: EA-CF-CARD
- 6 inch Adapter Plate EA-6-ADPTR (Used to retrofit new C-more 6" touch panel into existing EZTouch non-slim panel cutout.)
- D-SUB 15 pin 90 degree Comm Port Adapter EA-ADPTR-4
- D-SUB 15 pin to Terminal Block Adapter: EA-COMCON-3
- USB Pen Drive, 2 GB: SDCZ4-2048-A10
- Non glare 15 inch screen cover: EA-15-COV2 (pk of 3)
- Non glare 12 inch screen cover: EA-12-COV2 (pk of 3)
- Non glare 10 inch screen cover: EA-10-COV2 (pk of 3)
- Non glare 8 inch screen cover: EA-8-COV2 (pk of 3)
- Non glare 6 inch screen cover: EA-6-COV2 (pk of 3)

Safety Information

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. At Automationdirect.com® we constantly strive to improve our products and services. We reserve the right to make changes to the products and/or publications at any time without notice and without obligation. This publication may also discuss features that may not be available in certain revisions of the product.

Agency Approvals

UL/CUL/CSA/CE Certification Numbers

Name	UL/CUL	UL508	CSA	CE	ISO-9000
C-more Touch Panels & Accessories	E157382	File File # E157382	234884	EN61131-2	✓

Before you begin...

Minimum items required to create a working system:
- C-more Touch Panel - 6", 8", 10", 12" or 15" model
- C-more Programming Software, p/n EA-PGMSW
- C-more USB Programming Cable, p/n USB-CBL-AB15 or Ethernet connectivity between PC and Touch Panel
- Power source: C-more AC/DC Power Adapter, p/n EA-AC or a dedicated 24 VDC (20.4 - 28.8 VDC) switching power supply @ 1.5 A minimum
- Personal computer - to run the C-more programming software
- Communications Cable (serial or Ethernet) – to connect the C-more Touch Panel to your controller

1 Unpack and Inspect

- Unpack the C-more Touch Panel from its shipping carton. Included in the carton is the C-more Touch Panel, cutout template, mounting clips, temporary support stand, DC power connector, gasket, and this Quick Start Guide.
- Unpack any accessories that have been ordered, such as: AC/DC Power Adapter, Expansion Assembly, CompactFlash memory, programming cable, communications cable, etc.
- Inspect all equipment for completeness. If anything is missing or damaged, immediately call the AutomationDirect® returns department @ 1-800-633-0405.

Shipping Carton Contents
- AC/DC Power Adapter EA-AC
- Expansion Assembly EA-EXP-OPT
- Temporary Support Stand
- Cutout Template located here.
- Mounting Clips and DC power connector located in here.

2 Assemble Temporary Support Stand

6" & 8" Touch Panel – Temporary Stand
Shipping Carton Packing Material

10", 12" & 15" Touch Panel – Temporary Stand
Shipping Carton Packing Material
Insert tabs between layers

3 Install Optional Hardware Accessories (sold separately)

- Compact Flash Memory Card EA-CF-CARD
- CF Card Interface Module EA-CF-IF
- C-more Touch Panel
- AC/DC Power Adapter EA-AC
- USB Pen Drive SDCZ4-2048-A10
- Expansion Assembly EA-EXP-OPT
- 6" Adapter Plate EA-6-ADPTR
- Serial Port Adapter EA-ADPTR-4
- Serial Port Adapter EA-COMCON-3

NOTE: CompactFlash memory card designations – CF Slot #1 is at the top of the panel and CF Slot #2 is the CF Card Interface Module, p/n EA-CF-IF.

CF card interface module installs in right slot only, left slot for future

NOTE: Refer to the individual product data sheets that are included with the accessories for additional information.

CF card plugs into slot #1 at top of panel

NOTE: The C-more 6" touch panels will fit into the existing cutout of any EZTouch 6" slim bezel panel. Use the C-more 6" Adapter Plate, p/n EA-6-ADPTR, to install C-more 6" panels into existing cutouts of EZTouch 6" non-slim (rounded bezel) panels.

---

4 Available Communication Ports

- Compact Flash memory slot #1 is located at the top of panel.
- PLC Serial Communications

PLC Serial Communications (Pin Signals)

Pin	Signal	Pin	Signal	Pin	Signal
1	Frame GND	6	LE	11	TXD+ (422/485)
2	TXD (232C)	7	CTS (232C)	12	TXD– (422/485)
3	RXD (232C)	8	RTS (232C)	13	Term. Resistor
4	Future	9	RXD+ (422/485)	14	do not use
5	Logic GND	10	RXD– (422/485)	15	do not use

Bottom View

- For Future Use
- Audio Line Out, stereo. 1 Volt rms, 3.5mm Mini Jack (Amplifier Required)
- USB Port - Type B Programming/Download
- USB Port - Type A USB Device Options
- Ethernet 10/100 Base-T PLC Communications, Programming/Download

USB Port - Type B

Pin	Signal
1	Vbus
2	D–
3	D+
4	GND
Shell	Shield

USB Port - Type A

Pin	Signal
1	Vbus
2	D–
3	D+
4	GND
SHELL	Shield

Ethernet

Pin	Signal	Pin	Signal
1	TD+	5	do not use
2	TD–	6	RD–
3	RD+	7	do not use
4	do not use	8	do not use

- Link Status LED (Green): On = Ethernet Linked, Off = No Ethernet Comm.
- Network Activity LED (Orange): On = Active Network Data, Off = Network Idle

Note: Device is not available on Base Feature touch panels, part numbers EA7-S6M-R and EA7-T6CL-R.
Note: Use USB Programming Cable, p/n USB-CBL-AB15.

5 Install the Software and Develop a Project

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

- Personal Computer with a 333 MHz or higher processor (CPU) clock speed recommended; Intel® Pentium/ Celeron family, or AMD® K6/Athlon/Duron family, or compatible processor recommended
- 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
- 128 MB free RAM (512 MB recommended); 512 MB free RAM (1 GB recommended) for Vista
- 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 Home / Professional Edition Service Pack 2 (32 bit), Windows 2000 with Service Pack 4, Windows Vista® (32 or 64 bit) or Windows 7 (32 or 64 bit)

Insert the supplied CD-ROM into the PC's CD-ROM drive and follow the instructions. If you need assistance during the software installation, please refer to the supplied Software Installation Guide or call the AutomationDirect Technical Support team @ 770-844-4200.

NOTE: To check your computer system information, go to the Start Menu – All Programs and select Accessories, then System Tools, and finally System Information.

6 Connect Touch Panel to Computer

- Connect a USB Programming Cable, p/n 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
- or connect the C-more touch panel and PC together via an Ethernet hub or switch, and Ethernet cables (full feature panels only)
- or use an Ethernet crossover cable directly between the C-more touch panel Ethernet port and the PC Ethernet port (full feature panels only)

Ethernet via Crossover Cable
USB
Ethernet via Hub or Switch

7 Provide Power to the Touch Panel

- Wire a dedicated 24 VDC (20.4 - 28.8 VDC) power source rated at a minimum of 1.5 Amps to the DC connector on the rear of the C-more touch panel, include wiring the ground terminal to a proper equipment ground. The recommended power supply is AutomationDirect P/N: PS24-050D
- or install a C-more AC/DC Power Adapter, p/n EA-AC, to the rear of the touch panel and wire an AC voltage source of 100-240 VAC, 50/60Hertz, to its AC connector
- then turn on the power source and check the LED status indicators on the rear of the C-more touch panel for proper indication

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

24 VDC, -15%, +20% (20.4 - 28.8 VDC)
GND
Equipment Ground

AC Wiring
EA-AC

WARNING: The AC/DC Power Adapter should not be used with the EA7-T15C touch panel when operating temperatures are expected to exceed 40 °C (104 °F).

Recommended AC Supply Fuse: 3.0 A time delay, ADC p/n MDL3
100 - 240 VAC 50/60 Hz

C-more LED Status Indicators

CPU Status LED (Green, Orange & Red)	
Off	Power Off
Green	Normal – CPU Run State
Green (blinking)	Memory Error
Orange	Operating System not found
Orange (blinking)	LCD Backlight Failure
Red	Power Loss Detection

Power LED (Green)	
On	Power On
Off	Power Off

Serial TxD/RxD LED (Green)	
On	Comm. is active
Off	No communication

Tightening Torque: Panel mount torque: 71 - 85 oz-in (0.5 - 0.6 Nm), Mounting flange screw torque: 57 - 71 oz-in (0.4 - 0.5 Nm)

Rear View

---

8 Accessing the Touch Panel Setup Screens

- Access the Main Menu of the touch panel setup screens by pressing the extreme upper left corner of the touch panel display area for three (3) seconds as shown below.
- Adjust the time and date for the panel by pressing the Setting button on the Main Menu, then press the Adjust Clock button on the Setting screen.
- Use the right pointing arrows for the time or date display to select the unit to change. Use the up and down arrows to increment or decrement the value for the selected unit.
- Press OK when done to accept the changes to the time and date that is retained in the touch panel's battery backed memory, or press Cancel to exit the Adjust Clock setup screen without making any changes.
- Press the Main Menu button on the Setting screen and then the Exit button on the Main Menu screen to return to the application screen.

9 Touch Panel to PLC Communication Protocols & Cables

PLC Compatibility Table

Purchased Cable Description	Cable Part Number	PLC Family	Model	Protocols
AutomationDirect CLICK, DirectLOGIC PLC RJ-12 port DL06, DL06, DL105, DL205, DL305 D4-450 & H2-WINPLC (RS-232C)	EA-2CBL	Allen-Bradley	MicroLogix 1000, 1100, 1200, 1400, 1500, SLC 5-01/02/03, PLC5	DH485/AIC/AIC+
			MicroLogix 1000, 1100, 1200, 1400, 1500 SLC 5-03/04/05	DF1 Half Duplex; DF1 Full Duplex
DirectLOGIC (VGA Style) 15-pin port DL06, D2, D250 (250-1), D2-260 (RS-232C)	EA-2CBL-1		ControlLogix™, CompactLogix™, FlexLogix™	DF1 Full Duplex
			PLC-5	DF1 Full Duplex
DirectLOGIC PLC RJ-11 port, D3-340 (RS-232C)	EA-3CBL		ControlLogix, CompactLogix, FlexLogix - Tag Based Generic I/O Messaging	EtherNet/IP Server
DirectLOGIC DL405 PLC 15-pin D-sub (RS-232C)	EA-4CBL		ControlLogix, CompactLogix, FlexLogix - Tag Based	EtherNet/IP Client
DirectLOGIC PLC 25-pin D-sub port, DL405, D3-350, DL305 DCU and all DCM's (RS-232C)	EA-4CBL-2		MicroLogix 1100, 1400, SLC 5/05, both via Native Ethernet port	
Modbus TCP/IP GE		Modbus TCP/IP	MicroLogix 1000, 1100, 1200, 1400, 1500, and all SLC and PLC5 with AB Ethernet Adapter	
			Modbus TCP/IP devices	Modbus TCP/IP
Allen-Bradley MicroLogix 1000, 1100, 1200, 1400, 1500 (RS-232C)	EA-MLOGIX-CBL	GE	90/30, 90/70, Micro 90, VersaMax Micro	SNPX
		Mitsubishi	FX Series	FX Direct
Allen-Bradley SLC 5-03/04/05, ControlLogix, CompactLogix, FlexLogix, DF1 port (RS-232C)	EA-SLC-232-CBL		Q02, Q02H, Q06H, Q12H, Q25H	Q CPU
			Q, QnA Serial	QnA Serial
Omron			Q, QnA Ethernet	QnA Ethernet
Allen-Bradley PLC-5 DF1 port (RS-232C)	EAPLC5-232-CBL	Omron	C200 Adapter, C500	Host Link
			CJ1/CS1 Serial, CJ1/CS1 Ethernet	FINS
Allen-Bradley MicroLogix, SLC 5-01/02/03, PLC5 DH485 port (RS-232C)	EA-DH485-CBL	Modicon	984 CPU (Quantum 113 CPU), AEG Modicon Micro Series 110 CPU, 311-xx, 411-xx, 512-xx, 612-xx	Modbus RTU
GE 90/30, 90/70, Micro 90, VersaMax Micro 15-pin D-sub port (RS-422A)	EA-90-30-CBL	Siemens	S7-200 CPU, RS-485 Serial	PPI
			S7-200 CPU, S7-300 CPU, Ethernet	ISO over TCP
CLICK	all	Productivity 3000	Productivity3000 Serial (P3-550)	AutomationDirect Prod. 3000 Serial
			Productivity3000 Ethernet (P3-550)	AutomationDirect Prod. 3000 Ethernet
		CLICK	all	AutomationDirect Modbus (CLICK)
MITSUBISHI FX Series 25-pin port (RS-422A)	EA-MITSU-CBL	AutomationDirect DirectLOGIC	DL05/DL06	all	K-Sequence / DirectNET / Modbus (Koyo addressing)
			DL105	all	K-Sequence
MITSUBISHI FX Series 8-pin mini-DIN (RS-422A)	EA-MITSU-CBL-1			H0-ECOM/H0-ECOM100	DirectLOGIC Ethernet
				D2-230	K-Sequence
OMRON Host Link C200 Adapter, C500 (RS-232C)	EA-OMRON-CBL		DL205	D2-240	K-Sequence / DirectNET
				D2-250/D2-250-1/D2-260	K-Sequence / DirectNET / Modbus (Koyo addressing)
				D2-240/D2-250-1/D2-260 Using DCM	DirectNET / Modbus (Koyo addressing)
				H2-ECOM/H2-ECOM100	DirectLOGIC Ethernet
			DL305	D3-330/330P (Requires the use of a Data Communications Unit)	DirectNET
				D3-340	K-Sequence
				D3-350	DirectNET
				D3-350 DCM	Modbus (Koyo addressing)
			DL405	D4-430	K-Sequence
				D4-440	DirectNET
				D4-450	K-Sequence / DirectNET / Modbus (Koyo addressing)
				All with DCM	DirectNET / Modbus (Koyo addressing)
				H4-ECOM/H4-ECOM100	DirectLOGIC Ethernet
				H2-WinPLC (Think & Do) Live V5.2 or later and Studio any version	Think & Do Modbus RTU
				H2-WinPLC (Think & Do) Live V5.5.1 or later and Studio V7.2.1 or later	Think & Do Modbus TCP/IP (Ethernet port)

NOTE: EZTouch serial PLC communication cables are compatible with C-more touch panels.

EA-2CBL-1

10 Connect Touch Panel to PLC

- Connect the serial communications cable between the C-more touch panel and the PLC
- or connect the C-more touch panel and PLC together via an Ethernet hub or switch, and Ethernet cables (full feature panels only)
- or use an Ethernet crossover cable directly between the C-more Ethernet port and the PLC Ethernet port (full feature panels only)

Ethernet via Crossover Cable
Serial
Ethernet via Hub or Switch
DL06 PLC

Additional Help and Support

- For product support, specifications, and installation troubleshooting, a Hardware User Manual can be downloaded from the On-line Documentation area of the AutomationDirect Web site or purchased through the AutomationDirect Sales team @ 1-800-633-0405 as part number EA-USER-M.
- For software programming help, refer to the C-more Programming Software on-line embedded help.
- Refer to demos of the product at: http://c-more.automationdirect.com/software/software_demo.html
- For additional technical support and questions, call our Technical Support team @ 1-800-633-0405 or 770-844-4200.

Data Sheet: EA-QSG, Rev. P

Specification Table

Specification	6" STN grayscale w/ base features	6" TFT color w/ base features	6" STN grayscale w/ full 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	EA7-S6M-R	EA7-T6CL-R	EA7-S6M	EA7-T6CL	EA7-T8C	EA7-T10C	EA7-T12C	EA7-T15C
Display Actual Size and Type	5.7" STN grayscale	5.7" TFT color	5.7" STN grayscale	5.7" TFT color	8.4" TFT color	10.4" TFT color	12.1" TFT color	15.0" TFT color
Color Scale	15 shades of gray	65,536 colors	15 shades of gray	65,536 colors				65,536 colors
Display Viewing Area			4.54" x 3.4" [115.2 mm x 86.4 mm]		6.73" x 5.05" [170.9 mm x 128.2 mm]	8.31" x 6.24" [211.2 mm x 158.4 mm]	9.47" x 7.62" [240.6 mm x 194.5 mm]	11.97" x 8.98" [304.1 mm x 228.1 mm]
Screen Pixels			320 x 240 (QVGA)			640 x 480 (VGA)		1024 x 768 (XGA)
Display Brightness	150 cd/m² (NITS)	270 cd/m² (NITS)	150 cd/m² (NITS)	270 cd/m² (NITS)	300 cd/m² (NITS)	270 cd/m² (NITS)	260 cd/m² (NITS)	220 cd/m² (NITS)
LCD Panel Dot Pitch		0.36 mm x 0.36 mm		0.267 mm x 0.267 mm	0.267 mm x 0.267 mm	0.33 mm x 0.33 mm	0.267 mm x 0.267 mm	0.297 mm x 0.297 mm
Backlight Average Lifetime*¹				Approximately 50,000 hours				
Backlight User Replaceable				No				
Touch Panel Type			Analog Resistive (10-bit resolution, 1024 x 1024 touch area)				Analog Resistive (12-bit resolution, 4096 x 4096 touch area)	
CPU Type		32-Bit RISC CPU (333 MHz)			32-Bit RISC CPU (400 MHz)		32-Bit RISC CPU (400 MHz) Plus Graphic Accelerator Chip	
Battery			Replaceable battery – ADC Part # D2-BAT-1 (Manufacturer Part # CR2354)					
System Memory			SDRAM 32 MBytes				SDRAM 64 MBytes	
System Flash Memory			FLASH 32 MBytes				FLASH 64 MBytes	
Backup Memory (SRAM)			Control data backup memory (SRAM) 256 KBytes					
Logging Data Memory		USB Pen Drive p/n SDCZ4-2048-A10 (Optional)		CompactFlash Memory Card p/n EA-CF-CARD, industrial grade, high speed (Optional) or USB Pen Drive p/n SDCZ4-2048-A10 (Optional)				
Number of Screens		Up to 9999 with ver. 2.40 and later – limited by available project memory (10 MBytes)					Up to 9999 with ver. 2.40 and later – limited by available project memory (40 MBytes)	
Realtime Clock			Built into panel (PLC clock is still accessible if available)					
Calendar – Month/Day/Year			Yes - battery backup					
Screen Saver			Yes, backlight turns off after a 30–1500 minute adjustable time, or can be disabled					
Serial PLC Interface			Serial PLC Port: RS-232C/422/485 15-Pin D-sub (female)					
USB Port – Type B			Download/Program – USB Port – type B					
USB Port – Type A			Port for USB 1.1 device options – type A					
Ethernet Port	not available				Ethernet 10/100 Base-T			
Audio Line Out	not available				Optional: Audio Line Out, 1 Volt rms, stereo – requires amplifier and speaker(s)			
CF Card – Slot #1	not available				Optional: CompactFlash Memory Card p/n EA-CF-CARD, CF slot #1 located on top side of touch panel.			
Expansion Assembly (p/n EA-EXP-OPT)	not available				Optional: Use the CF Card Interface Module p/n EA-CF-IF in the right slot of the Expansion Assembly for installing CF card - Slot #2. The left slot of the Expansion Assembly is for future options.			
Supply Power			24 VDC, -15%, +20% (20.4–28.8 VDC operating range p/n PS24-050D) (Use an AC Power Adapter, p/n EA-AC, to power the touch panel from a 100-240 VAC, 50/60 Hz. power source.)					
Power Consumption	9 W @ 24 VDC	9 W @ 24 VDC	10 W @ 24 VDC	11 W @ 24 VDC	15 W @ 24 VDC	17 W @ 24 VDC	20 W @ 24 VDC	33 W @ 24 VDC
Recommended DC Supply Fuse			2.5 A time delay, ADC p/n MDL2-5				4.0 A time delay, ADC p/n MDL4	
Operating Temperature			0 to 50 °C (32 to 122 °F); Maximum surrounding air temperature rating: 50 °C (122 °F)					
Storage Temperature			–20 to +60 °C (–4 to +140 °F)					
Humidity			10–85% RH, non-condensing					
Noise Immunity			Noise voltage: 1000 Vp-p, Pulse width: 1 µs, Rise time: 1 ns					
Withstand Voltage			1000 VDC for 1 minute, between DC power supply input terminal and safety ground					
Insulation Resistance			Over 20 MΩ between DC power supply input terminal and safety ground					
Vibration			IEC61131-2 compliant, 10-57 Hz 0.075 mm amplitude, 57–150 Hz 1.0 G: 10 sweep cycles per axis on each of 3 mutually perpendicular axes					
Shock			15 G peak, 11 ms duration, 2 shocks per axis, on 3 mutually perpendicular axes					
Environment			For use in Pollution Degree 2 Environment					
Enclosure			Meets UL Type 4X, when mounted correctly. For indoor use only.					
Agency Approvals			UL, cUL, CE					
Dimensions		6.140" x 8.047" x 1.697" [156.0 mm x 204.4 mm x 43.1 mm]			8.748" x 10.894" x 2.053" [222.2 mm x 276.7 mm x 52.1 mm]	10.669" x 13.661" x 2.079" [271.0 mm x 347.0 mm x 52.8 mm]	11.024" x 13.366" x 2.075" [280.0 mm x 339.5 mm x 52.7 mm]	13.000" x 16.748" x 2.048" [330.2 mm x 425.4 mm x 52.0 mm]
Weight	1.46 lb. [660 g]	1.43 lb. [650 g]	1.50 lb. [680 g]	1.48 lb. [670 g]	2.60 lb. [1,180 g]	3.55 lb. [1,610 g]	4.59 lb. [2,080 g]	7.01 lb. [3,180 g]

* NOTE 1: 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.

6" Touch Panel Dimensions — EA7-S6M-R, EA7-T6CL-R, EA7-S6M, EA7-T6CL

8" Touch Panel Dimensions – EA7-T8C

10" Touch Panel Dimensions – EA7-T10C

15" Touch Panel Dimensions – EA7-T15C

12" Touch Panel Dimensions – EA7-T12C

6" Touch Panel Cutout (EA7-S6M-R, EA7-T6CL-R, EA7-S6M, EA7-T6CL)

8" Touch Panel Cutout – EA7-T8C

10" Touch Panel Cutout – EA7-T10C

15" Touch Panel Cutout – EA7-T15C

12" Touch Panel Cutout – EA7-T12C

Enclosure Mounting Thickness Range and Mounting Clip Screw Torque

Touch Panel Size	Enclosure Thickness Range	Mounting Clip Screw Torque
6" – lower mounting clip position	0.039 - 0.24 inch [1 – 6 mm]	35 – 50 oz-in [0.25 – 0.35 Nm]
6" – upper mounting clip position	0.20 - 0.63 inch [5 – 16 mm]	35 – 50 oz-in [0.25 – 0.35 Nm]
8", 10", 12" & 15"	0.039 - 0.20 inch [1 – 5 mm]	42 – 57 oz-in [0.3 – 0.4 Nm]

6" Adapter Plate Dimensions – EA-6-ADPTR

Cutout Dimensions

Mounting Details

Replacement Parts

- Battery: D2-BAT-1
- 6 inch mounting clips: EA-BRK-1 (pk of 2)
- 8 - 15 inch mounting clips: EA-BRK-2 (pk of 8)
- DC power connector: EA-DC-CON
- AC power connector: EA-AC-CON
- 15 inch backlight: EA-15-BULB, EA-15-BULB2
- 12 inch backlight: EA-12-BULB, EA-12-BULB2
- 10 inch backlight: EA-10-BULB, EA-10-BULB2
- 8 inch backlight: EA-8-BULB, EA-8-BULB2
- 6 inch Adapter Plate replacement gasket: EA-6-ADPTR-GSK
- 6 - 15 inch gaskets: EA-6-GSK, EA-8-GSK, EA-10-GSK, EA-12-GSK, EA-15-GSK
- 6 - 15 inch Bezels: EA-6-BEZEL, EA-8-BEZEL, EA-10-BEZEL, EA-12-BEZEL, EA-15-BEZEL (gasket not included)

Note: 6 inch bezel is not user replaceable.

*CAUTION - The battery used in this device may present a risk of fire or chemical burn if mistreated. Do not recharge, disassemble, heat above 100 °C (212 °F) or incinerate. Replace battery with AutomationDirect part number D2-BAT-1 or CR2354 only. Use of another battery may present a risk of fire or explosion. Dispose of used battery properly. Keep away from children.

Perchlorate Material, special disposal handling may apply.

AVERTISSEMENT : La pile utilisée dans ce dispositif pourrait présenter un risque d'incendie ou de brûlure chimique si traitée inadéquatement. Ne pas recharger la pile, ne pas la démonter, ne pas la chauffer au-delà de 100 °C (212 °F) ni l'incinérer. Remplacer la pile uniquement par la pièce n° D2-BAT-1 (CR2354) d'AutomationDirect.com. L'emploi de toute autre pile peut présenter un risque d'incendie ou d'explosion. Jeter la pile usagée adéquatement. Tenir hors de portée des enfants.

AC/DC Power Adapter Dimensions – EA-AC

CF Card Interface Module Dimensions

Expansion Assembly Dimensions

EA-EXP-OPT

EA-CF-IF

Touch Panel Overall Depth with Accessories Installed

with AC/DC Power Adapter, EA-AC

with Expansion Assembly, EA-EXP-OPT

EA7-S6M-R = 2.921 [74.2]
EA7-T6CL-R = 2.921 [74.2]
EA7-S6M = 2.921 [74.2]
EA7-T6CL = 2.921 [74.2]
EA7-T8C = 3.157 [80.2]
EA7-T10C = 3.106 [78.9]
EA7-T12C = 3.102 [78.8]
EA7-T15C = 3.075 [78.1]

15-Pin Serial Port Adapters - Dimensions

EA-COMCON-3

EA-ADPTR-4