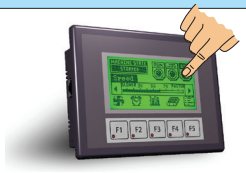
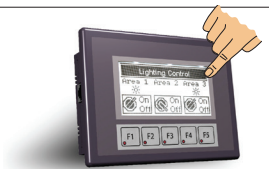
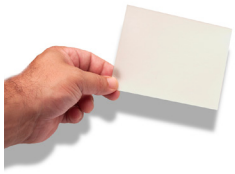
C-more Micro EA1 Series Selection Guide

C-more Micro EA1 Series Panels			
Part Number		***Description***	***Price***
EA1-S3ML		***C-more*** Micro EA1 series touch screen HMI, 3in monochrome STN LCD, analog resistive, 128 x 64 pixel, LED backlight, (1) serial port.	Retired
EA1-S3ML-N	Non-Touch 	***C-more*** Micro EA1 series HMI, 3in monochrome STN LCD, 128 x 64 pixel, LED backlight, (1) serial port.	Retired
EA1-S3MLW		***C-more*** Micro EA1 series touch screen HMI, 3in monochrome STN LCD, resistive single-touch, 128 x 64 pixel, high-contrast white LED backlight, (1) serial port.	Retired
EA1-S3MLW-N	Non-Touch 	***C-more*** Micro EA1 series HMI, 3in monochrome STN LCD, 128 x 64 pixel, high-contrast white LED backlight, (1) serial port.	Retired

Part Number	Panel Software / Firmware Version Required
EA1-S3ML	1.0 or later
EA1-S3MLW	1.5 or later
EA1-S3MLW-N	

C-more Micro EA1 Series Selection Guide

C-more Micro EA1 Series Panels Programming Software & Programming Cable			
Part Number		***Description***	***Price***
EA-MG-PGMSW		***C-more*** Micro Windows programming software, USB or free download. For use with ***C-more*** Micro panels. Requires USB port connection from PC to ***C-more*** Micro panel.	$31.50
EA-MG-PGM-CBL		AutomationDirect programming cable assembly, USB A to 6-pin RJ12, 6ft cable length. For use with ***C-more*** Micro panels, CLICK CPUs, Do-more H2 series CPUs, and DirectLOGIC CPUs.	$56.00

C-more Micro EA1 Series Panel Accessories			
Part Number		***Description***	***Price***
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.	$49.00
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-MG-COV-CL		***C-more*** screen protector, clear, 3in. Package of 5. For use with ***C-more*** Micro 3in HMIs.	$47.50
EA-4-COV2		***C-more*** Micro screen protector, non-glare, 4in. Package of 3. For use with ***C-more*** Micro EA1-T4CL 4in HMIs.	Retired
EA-6-COV2		***C-more*** screen protector, non-glare, 6in. Package of 3. For use with ***C-more*** and ***C-more*** Micro 6in HMIs.	$49.50



For a list of supported protocols and cabling options refer to the 3-inch ***C-more*** Micro Protocols and cabling chart starting on page tCMM-12

C-more Micro 3-inch EA1 Specifications

Specification \ Model	3-inch STN Micro Panel Touch Screen	3-inch STN Micro Panel Non-Touch Screen
Part Number	EA1-S3ML, EA1-S3MLW [retired]	EA1-S3MLW-N
Description	128 x 64 pixel LCD display, five user defined keypad function buttons, and five user defined LED's	
Display		
• Type	3.1-inch STN monochrome LCD, graphical characters	
• Resolution	128 (W) x 64 (H) pixel	
• Color	2 colors (normal / inverse)	
• Viewing Area Size	2.789" (W) x 1.385" (H) [70.8 mm x 35.2 mm]	
• Active Area Size	2.670" (W) x 1.259" (H) [67.8 mm x 32.0 mm]	
• Contrast	Adjusted from the panel's built-in configuration setup menu	
• Viewing Angle	3, 9 o'clock axis –> 45 degrees 6 o'clock axis –> 45 degrees 12 o'clock axis –> 30 degrees	
Backlight		
• Type	LED	
• Color	5 user defined colors: EA1-S3MLW-N - White, Pink1, Pink2, Pink3 and Red	
• User Replaceable	No	
Touch Screen		
• Type	Analog touch panel, single touch*	N/A
• Operation	51 gram force [0.5 N] maximum	N/A
• Life	Minimum of 1,000,000 cycles	N/A
Features		
• User Memory	768 KB	
• Number of Screens	Up to 999 – limited by project memory usage	
• Beep (Internal)	Yes	
• Keypad Function Buttons	Five user defined function key buttons with the ability to customize the label. Minimum of 500,000 cycles	
• Keypad Function Button LEDs	Each function key button includes a red LED that can be user programmed.	
• Serial Communications	Built-in RJ12 serial communications port (RS-232). Optional serial communications port (RS-232, RS-485/422) when using the optional EA-MG-SP1 Serial Port with DC Power Adapter.	
• Expansion Connection	Yes – used with optional EA-MG-P1 DC Power Adapter (discontinued), and EA-MG-SP1 Serial Port with DC Power Adapter (discontinued).	
Screen Objects		
• Functional Devices	Pushbutton, Switch, Indicator Button, Indicator Light, Graphic Indicator Light, Numeric Display, Numeric Entry, Inc/Dec Value, Bar Graph, Bitmap Button, Static Bitmap, Dynamic Bitmap, Recipe Button, Static Text, Lookup Text, Dynamic Text, Scroll Text, Screen Change Pushbutton, Screen Selector, Adjust Contrast, Function, Key Configuration Object, Realtime Graph, Line Graph, Analog Meter	
• Static Shapes	Lines, Rectangles, Circles and Frames	
• Displayable Fonts	Fixed fonts: 4x6, 6x6, 6x6B, 6x8, 8x16, 8x32, 8x64, 16x16, 16x32, 16x64, 32x16, 32x32, 32x64, and Windows fonts	
***Note: The Touchscreen is designed to respond to a single touch. If it is touched at multiple points at the same time, an unexpected object may be activated.**		
***C-more* 3-inch Micro panel specifications continued on next page.**		

C-more Micro 3-inch EA1 Specifications

Specification \ Model	3-inch STN Micro Panel Touch Screen	3-inch STN Micro Panel Non-Touch Screen
Part Number	EA1-S3ML, EA1-S3MLW [retired]	EA1-S3MLW-N
Electrical		
• ***Input Voltage Range***	5.0 VDC (4.75 – 5.25 VDC)	
• ***Input Power***	Supplied through the panel's RJ12 serial communications port connection when used with any AutomationDirect PLC having an RJ12 communication port.	
• ***Power Consumption***	1.05W (220mA @ 4.75 VDC)	
• ***Recommended Fuse***	Type AGC fast acting glass fuse, 250 mA, 250 VAC, ADC p/n AGC-25 No fuse required when directly connected to a PLC or PC with recommended cable.	
• ***Maximum Inrush Current***	1 A for 500 µs	
• ***Acceptable External Power Drop Duration***	Maximum 1ms	
Environmental*		
• ***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 (EN61131-2) RFI, (145MHz, 440Mhz 10W @ 10cm) Impulse 1000V @ 1µS pulse EN61000-4-2 (ESD), EN61000-4-3 (RFI), EN61000-4-4 (FTB), EN61000-4-5 (Surge) N61000-4-6 (Conducted), EN61000-4-8 (Power frequency magnetic field immunity)	
• ***Enclosure***	For use on a flat surface of Type 1, 4X enclosure (Indoor use only)	
• ***Agency Approvals***	CE (EN61131-2), UL508, CUL Canadian C22.2 No. 142-M95, UL File E157382, CSA File 234884	
Physical		
• ***Dimensions***	4.488" (W) x 3.228" (H) x 1.593" (D) [114.0 mm x 82.0 mm x 40.5 mm]	
• ***Enclosure Mounting Thickness Range***	0.04" – 0.2" [1 – 5 mm]	
• ***Mounting Clip Screw Torque Range***	21 – 28 oz·in [0.15 – 0.2 N·m]	
• ***Depth from bezel rear with options Module***	2.295" [58.3 mm]	
• ***Weight***	5.82 oz. (165 g)	

NOTE: The environmental specifications for the panels shown above are also applicable for the ***C-more*** 3" Micro accessories shown later in this section of the catalog.

Supported Protocols / Drivers
Serial - Panel port1
AutomationDirect Productivity Series
AutomationDirect CLICK
AutomationDirect Do-more / BRX*
AutomationDirect K-sequence
AutomationDirect DirectNET
AutomationDirect Modbus
Modicon Modbus RTU
Entivity Modbus RTU
Note: * BX-P-SER2-RJ12 is required

For a list of supported protocols and cabling options refer to the 3-inch ***C-more*** Micro Protocols and cabling chart starting on pagepage tCMM-12

C-more Micro Programming Software

FREE software!

C-more Micro Programming Software can be downloaded at no charge or a USB version may be purchased by ordering EA-MG-PGMSW. The software requires a USB port or Ethernet connection* on your PC to connect to the ***C-more*** Micro panel. Software Help Files are included in the download. This software programs all the ***C-more*** Micro panels (does not program the ***C-more*** 6-inch through 15-inch touch panels).



Note: This software is used to program ***C-more*** Micro panels only.

Note: The Ethernet port is built in to EA3-S3ML and EA3-T4CL and EA3-T6CL requires the optional EA-ECOM module for Ethernet.

Part Number	Panel Software / Firmware Version Required
EA3-S3ML-RN	4.30 or later
EA3-S3ML-R	
EA3-S3ML	4.20 or later
EA3-T4CL	
EA3-T6CL	3.6 or later

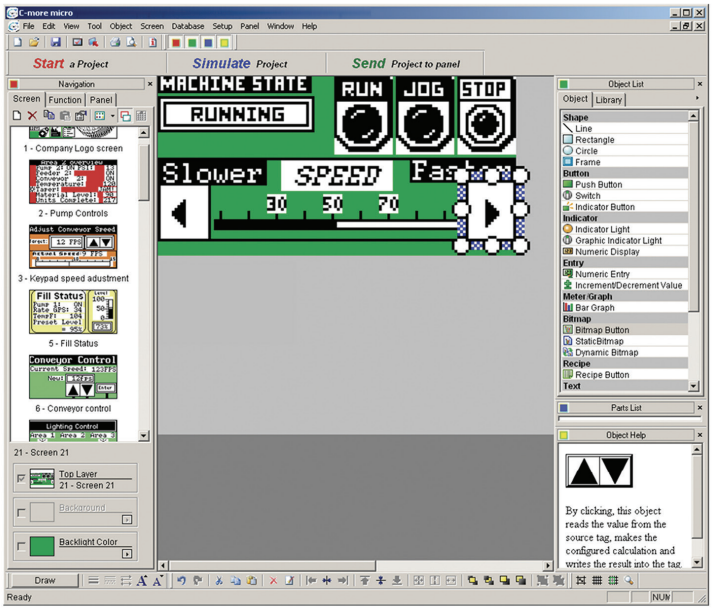
C-more Micro Programming Software is a spin-off of its powerful sibling ***C-more***
Touch Panel. It offers very high end features designed to reduce your configuration time. Simply drag and drop the objects from the object list (right side of screen) onto the screen construction area. Then configure your PLC tags and click on the objects you wish to use. Use the built-in simulator to review your work on your PC before ever downloading your project! The time saving benefits of the ***C-more*** Micro configuration software could easily pay for the panel. Check out www.CmoreMicro.com to download a free version.

Built-in project simulator

- Runs your project on your PC
- Test all of your screens before downloading
- Time savings pays for the panel
- Simulate function keys and keypad bezel

Built-in user object/ screen libraries

Save time by re-using your custom objects and screens.



Thumbnail project preview pane

Helps keep track of multi-screen projects.

Scrolling object selection window

Lets you find the object you want fast. Just drag and drop it on the screen.

PC requirements

Following are the minimum system requirements for running ***C-more*** Micro Programming Software, EA-MG-PGMSW, on a PC:

- Windows® Operating System (See automationdirect.com for specific operating system requirements.)
- 150 MB free hard-disk space
- USB port for installing software from the USB, or internet access to download free programming software
- USB port to use with the correct Programming Cable Assembly for project transfer from the programming software to the panel

Scrolling help window

Gives you helpful information on each object