

MAINTENANCE



CHAPTER 7

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Maintenance



Although the *C-more*[®] Micro-Graphic panels require very little maintenance, setting up a routine maintenance schedule will ensure the longevity of the product in your application.

The following are some suggestions of items to include in a preventive maintenance list or schedule. Most of these items should be scheduled quarterly or bi-annually.

Project Backup

During a routine preventive maintenance schedule is a good time to make sure that there is an up-to-date backup of the application project.

Check Operating Environment

Make sure the *C-more* Micro-Graphic panel is operating in the proper temperature range: (0 to 50 °C (32 to 122 °F)).



Make sure the *C-more* Micro-Graphic panel is operating within the specified humidity range: (5–95% RH, non-condensing).



Make sure the operating environment is free of corrosive vapors and gasses.



Check Operating Voltage

Check the input voltage that is powering the *C-more* Micro-Graphic panel to make sure it is within the appropriate range.

24 VDC: The acceptable voltage range to the panel is 10.2-26.4 VDC (6.5W @ 10.2 VDC (630mA)).

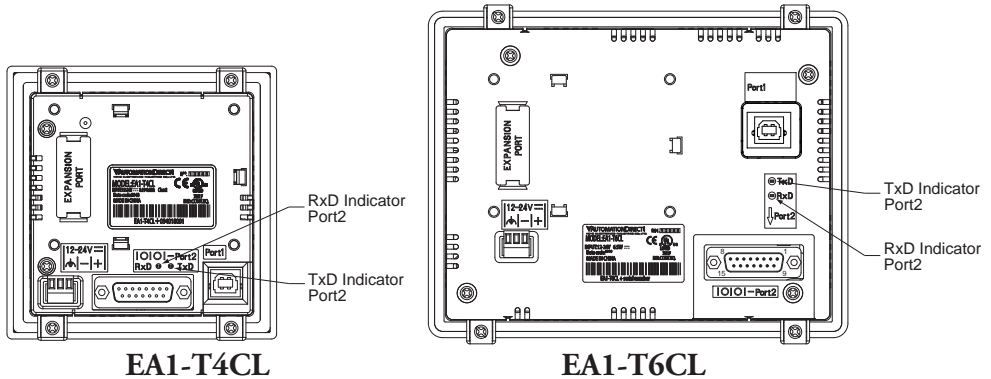


NOTE: When the panel is powered through Port1 from a connected PC, the screen brightness is diminished because the panel is running in **Low-Power Mode**. Connect an external 12-24 VDC power source when the panel is installed in its application for full brightness.

Check Transmit and Receive Indicators

During a routine maintenance check is a good time to take a quick look at the status indicators on the back of the *C-more* Micro-Graphic panel. There should be activity on both the TxD and RxD LED indicators when connected serially to a PLC or control device and data is being updated on the screen.

C-more Color Micro-Graphic Panel Communication Port Status Indicators



Check Physical Conditions

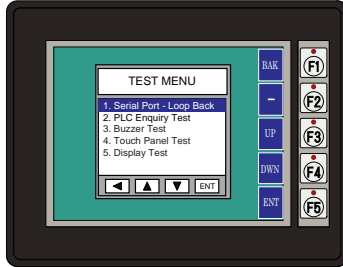
Make sure that harmful chemicals are not being used around the *C-more* Micro-Graphic panel. Look for any deterioration of the panel's bezel and front display area. See **Chapter 2: Specifications** for identification of the materials on the face of the panels and accessory bezels.

Check the mounting gasket to make sure it is sealing properly and has not deteriorated. Replace the mounting gasket if there are any signs of deterioration, or if there is any evidence that moisture/liquids have penetrated to the inside of the enclosure where the panel is mounted. Information on replacement gaskets can be found in **Chapter 9: Replacement Parts**.

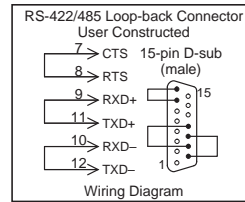
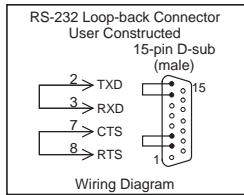
Check to make sure that none of the cooling vents around the inside section of the *C-more* Micro-Graphic panel are clogged with dust or debris. Also make sure that there is clearance around the panel as shown in **Chapter 4: Installation and Wiring**.

Run Tests under the System Setup Screens

Use the *C-more* Micro-Graphic panel's System Setup Screens to test communication port, PLC connectivity, the internal beeper and touch screen operation. See **Chapter 5: System Setup Screens** for additional details.



Serial Port - Loop Back Test - Performs a test to verify either the RS-232 or the RS485/422 serial communications functionality from the 15-pin connector (Port 2) on the panel is operating correctly. A loop back connector inserted into the port is required for proper testing. Wiring diagrams to build RS-232 and RS-485/422 loop back connectors are shown below.



PLC Enquiry Test - Tests the communications with the selected PLC protocol between the panel and a connected PLC.

Buzzer Test - Use this option to test the internal audible beeper of the panel.

Touch Panel Test - Tests the response of the touch screen area to contact. This test is used to make sure the touch screen area is responding properly.



Check Settings under the System Setup Screens

Use the *C-more* Micro-Graphic panel's System Setup Screens to check the various settings such as the beep and orientation. See **Chapter 5: System Setup Screens** for additional details.

Beep - Used to enable or disable the internal audible beeper. the default is beep on.

Calibration - Used to calibrate the touch screen on the panel.

Cleaning the Display Screen

The display screen should be cleaned periodically by wiping it with a lint free damp cloth using a mild soap solution. Dry the surface when finished with a lint free cloth. Do not use cleaning solvents (ammonia, alcohol, acetone, etc.) which may damage the plastic housing and touch screen.

The longevity of the touch screen can be increased by the use of the EA-4-COV2 or EA-6-COV2 clear screen overlay. See **Chapter 3: Accessories** for additional information on the screen overlay.

To prevent damage to the touch screen, avoid touching the screen with sharp objects, striking the screen with a hard object, using abrasives on the screen, or using excessive force when pressing the touch screen.

Check Project Functionality

During routine maintenance is a good time to check the functionality of your application, making sure that various areas on different screens do what they were designed to do. An outline or specification for the application is a useful tool for testing the various aspects of your application. As a starting point, you may want to run through all the screens to make sure they are accessible if the project allows this.

If there are any trouble-shooting procedures programmed into the *C-more* Micro-Graphic panel application, now is a good time to also check these aids.

Checks from the *C-more* Micro-Graphic Programming Software

If you have a PC available with the *C-more* Micro-Graphic Programming Software, EA-MG-PGMSW, installed, and the panel is connected to the PC, you can check the status of the panel from the **Panel Information** window.

The **Panel Information** window shown below will indicate the panel type, if a keypad bezel has been installed, the total memory, memory used, free memory, firmware version, mask ROM version, and the PLC protocol selected for its serial communication ports. The programming software can also be used to update the panel's firmware to the latest version.

