WARNING!

Programmable control devices such as EZ Series Touch Panel are not fail-safe devices and as such must not be used for stand-alone protection in any application. Unless proper safeguards are used, unwanted start-ups could result in equipment damage or personal injury. The operator must be made aware of this hazard and appropriate precautions must be taken.

In addition, consideration must be given to the use of an emergency stop function that is independent of the programmable controller.

The diagrams and examples in this user manual are included for illustrative purposes only. The manufacturer cannot assume responsibility or liability for actual use based on the diagrams and examples.

CAUTION

Do not press the EZ Series Touch Panel touchscreen with any sharp objects. This practice may damage the unit beyond repair.

Trademarks

This publication may contain references to products produced and/or offered by other companies. The product and company names may be trademarked and are the sole property of their respective owners. EZ Automation disclaims any proprietary interest in the marks and names of others.

Manual Part Number EZ-PANEL-M

© Copyright 2005, EZAutomation
All Rights Reserved

No part of this manual shall be copied, reproduced, or transmitted in any way without the prior written consent of EZAutomation. EZAutomation retains the exclusive rights to all information included in this document.

Designed and Built by AVG
4140 Utica Ridge Rd. • Bettendorf, IA 52722-1327

Marketed by EZAutomation
4140 Utica Ridge Road • Bettendorf, IA 52722-1327

Phone: 1-877-774-EASY • Fax: 1-877-775-EASY • www.EZAutomation.net EZ-PANEL-M
# Table of Contents

WARNING/Caution ........................................................................................................... inside front cover

Table of Contents ............................................................................................................. i

Manual Revisions ........................................................................................................... v

EU Information ............................................................................................................... vi

1 GETTING STARTED ...................................................................................................... 1
   Manual Organization .................................................................................................... 1
   Manual Sections Table ............................................................................................... 1
   Introduction .................................................................................................................. 2
   What you need to get started ....................................................................................... 3
      Hardware .................................................................................................................... 3
      Software .................................................................................................................... 3
   Need Help? .................................................................................................................... 3
      Onscreen HELP ......................................................................................................... 3
      Fly-Over HELP ......................................................................................................... 3
      PLC HELP ................................................................................................................. 3
      Technical Support ..................................................................................................... 4

2 MODELS, FEATURES AND ACCESSORIES ............................................................... 5
   6-inch EZ Series Touch Panel Models ......................................................................... 5
   8-inch EZ Series Touch Panel Models ......................................................................... 7
   10-inch, and 15-inch EZ Series Touch Panel Models ................................................ 8
   Features ....................................................................................................................... 9
   PLCs Supported by EZ Series Touch Panel ................................................................ 10
   Replacement and Optional Equipment ...................................................................... 11
   PLC Cable Part Numbers .......................................................................................... 12

3 SPECIFICATIONS ....................................................................................................... 13
   6-inch Models ............................................................................................................. 13
   6-inch and 8-inch Standard Bezel Models ................................................................ 14
   8-inch, 10-inch, and 15-inch Slim Bezel Models ..................................................... 15

4 INSTALLATION .......................................................................................................... 17
   Mounting ..................................................................................................................... 18
      Method 1. Stud Mounting ......................................................................................... 18
         6-inch Gray Scale & Color Panel
            Outline & Cutout Dimensions ........................................................................ 19
         6-inch White on Blue, Gray Scale, & Color Slim Bezel
            Outline & Cutout Dimensions ........................................................................ 20
         8-inch Color Slim Bezel Outline Dimensions ................................................... 21
         8-inch Color Slim Bezel Cutout Dimensions ..................................................... 22
         10-inch Color Slim Bezel Outline Dimensions .................................................. 23
         10-inch Color Slim Bezel Cutout Dimensions ................................................. 24
         15-inch Color Slim Bezel Outline Dimensions .................................................. 25
TABLE OF CONTENTS

15-inch Color Slim Bezel Cutout Dimensions ............................................. 26
Method 2. DIN Clips .................................................................................. 27
Connections and Wiring .............................................................................. 29
  Wiring Diagram ......................................................................................... 29
  Power Terminal ......................................................................................... 30
  PLC Port .................................................................................................. 30
  COM1 Port ............................................................................................... 31
Option Card Installation ............................................................................ 32
  Allen-Bradley Data Highway Plus Option Card ........................................ 33
  EZ Ethernet Option Card ......................................................................... 34
  EZ Ethernet Option Card Outline Drawing ............................................. 35
  Generic DeviceNet I/O Option Card ....................................................... 36
  Generic Ethernet/IP Option Card ........................................................... 37
  Modicon Modbus Plus Option Card ......................................................... 38
  Generic Proﬁbus-DP Option Card ............................................................ 39
  Mitsubishi CC Link Option Card ............................................................. 40
Communications Setup ............................................................................... 41
  Clock ....................................................................................................... 41
  COM1 ...................................................................................................... 42
  Contrast ................................................................................................... 43
  Touchpad Test ......................................................................................... 43
  Display Test ......................................................................................... 44
  Exit ......................................................................................................... 44
  Reboot .................................................................................................. 44

5 MAINTENANCE & TROUBLESHOOTING .............................................. 45
  Shutting Off Power to EZ Series Touch Panel ........................................... 45
  Lithium Battery Replacement ................................................................. 47
  Gasket Replacement ............................................................................... 48
  Panel Status Indicator Light ...................................................................... 48
  RAM Upgrade ......................................................................................... 49
  FLASH Program Backup .......................................................................... 50
  Fuse Reset ............................................................................................... 50
  Fluorescent Backlight Bulb Replacement ................................................. 51
  Precautions ............................................................................................ 51
  Touchscreen/Chemical Compatibility ...................................................... 52
    Standard Bezel ..................................................................................... 52
    Slim Bezel .......................................................................................... 52
  Touchscreen Cleaning ........................................................................... 54
  Troubleshooting ................................................................................... 55
  Warranty Repairs .................................................................................. 57

APPENDIX A (PLC Cable Wiring Diagrams) ............................................. A-1
  Allen-Bradley SLC500, 5/01, /02, /03 DH-485/AIC (P/N EZ-DH485-CBL) ........................................................................... A-1
Allen-Bradley SLC DF1 RS-232C (P/N EZ-SLC-232-CBL).......................... A-2
Allen-Bradley Micrologix 1000/1200/1500 RS-232C
  (P/N EZ-MLOGIX-CBL) ..................................................................... A-2
Allen-Bradley PLC5 DF1 RS-232C (P/N EZPLC5-232-CBL) .................. A-2
Aromat PLC, RS232 Mini DIN .............................................................. A-3
Control Techniques Unidrive 4-wire .................................................. A-4
Control Techniques Unidrive 2-wire .................................................. A-4
Control Technology Corporation (CTC) RS232, RJ-45 Port ............... A-5
DirectLogic PLC RJ-12, DL05, DL105, DL205, DL350, and DL450,
  RS-232C (P/N EZ-4CBL-1) ............................................................... A-6
DirectLogic PLC VGA 15-pin, 250, RS-232C (P/N EZ-2CBL-1) .......... A-6
DirectLogic PLC RJ-11, 340, RS-232C (P/N EZ-3CBL) ..................... A-6
DirectLogic PLC 15-pin D-SUB, DL405, RS-232C
  (P/N EZ-4CBL-2) ........................................................................... A-7
DirectLogic PLC 25-pin D-SUB, DL405, 350, 305 DCU, and all DCMs
  RS-232C (P/N EZ-4CBL-2) ............................................................ A-7
Idec Micro 3 PLC .................................................................................. A-8
Idec MicroSMART PLC ........................................................................ A-9
General Electric 90/30 and 90/70 15-pin D-SUB, RS-422A
  (P/N EZ-90-30-CBL) .................................................................... A-10
Mitsubishi FX Series 25-pin, RS-422A (P/N EZ-MITSU-CBL) ........... A-10
Mitsubishi FX Series 8-pin Mini DIN RS422A .................................... A-11
Modicon Modbus RS-232.................................................................... A-11
  Wiring Diagram for the 984 CPU, Quantum 113 CPU .......... A-11
  Wiring Diagram for AEG Modicon MICRO Series: 110CPU 311-xx,
    110 CPU 411-xx, 110 CPU 512-xx, 110 CPU-612-xx ............. A-12
Modicon Modbus with RJ45 ............................................................... A-12
Omron C200, C500, RS-232C (P/N EZ-OMRON-CBL) ..................... A-13
Omron CQM1 and CPM1 ................................................................. A-13
Siemens S7 MPI Adaptor, RS-232C (P/N EZ-SMPI-CBL) ................. A-14
Siemens S7_200 PLC RS485, D-sub Male 9-pin ......................... A-14
Square D Symax, RS422A D-sub Male 9-pin .............................. A-15
Texas Instruments 505 Series PLC, RS232C .................................. A-15
Texas instruments 545-1102 Series PLC, RS422A......................... A-16
Texas Instruments 545-1104 Series PLC, RS422A......................... A-16
Uni-Telway Telemecanique TSX 37 Micro PLC ......................... A-17
EZ Series Touch Panel RS-422A/RS-485A Wiring Connections for
  DirectLogic PLCs ........................................................................ A-18
EZ Series Touch Panel RS-422A Wiring Connections for
  Allen-Bradley SLC 503/504, RS-232C Port ................................. A-19
EZAutomation EZ Series PLC 9-pin D-Sub RS232 ......................... A-20

INDEX ........................................................................................................I-1
Manual Revisions

Manual Part Number: EZ-PANEL-M
Manual Title: EZ Series Touch Panel Hardware Manual

The following table provides you with update information. If you call technical support with a question about this manual, please be aware of the revision number.
EU Information

EZ Series Touch Panel is manufactured in compliance with European Union (EU) Directives and carries the CE mark. EZ Series Touch Panel has been tested under CE Test Standard #EN55011, and is listed under UL File #E209355. The following information is provided to comply with EU documentation requirements.

Please NOTE: Products with CE marks perform their required functions safely and adhere to relevant standards as specified by EU directives provided they are used according to their intended purpose and that the instructions in this manual are adhered to. The protection provided by the equipment may be impaired if this equipment is not used in accordance with this manual. Only replacement parts supplied by EZAutomation or its agents should be used.

Technical Support
Consult EZ Series Touch Panel Editor Programming Software Help or you may find answers to your questions in the operator interface section of our web site @ www.EZAutomation.net. If you still need assistance, please call our technical support at 1-877-774-EASY or FAX us at 1-877-775-EASY.

Environmental Specifications

Operating Temperature
- 6” White on Blue & Mono non-expandable ............... 0 to 45 °C
- 6” Color ............................................................... 0 to 50 °C
- 6” Color TFT ...................................................... 0 to 55 °C
- 8” Color ............................................................. 0 to 50 °C
- 8” Color TFT ...................................................... 0 to 55 °C
- 10” Color .......................................................... 0 to 55 °C
- 15” Color .......................................................... 0 to 55 °C

Storage Temperature
- 6” White on Blue & Mono non-expandable ............... -20 to +60 °C
- 6” Color ............................................................. -25 to +60 °C
- 6” Color TFT ...................................................... -25 to +65 °C
- 8” Color ............................................................. -25 to +60 °C
- 8” Color TFT ...................................................... -25 to +65 °C
- 10” Color .......................................................... -25 to +65 °C
- 15” Color .......................................................... -25 to +65 °C

Operating Humidity ................................. 10–95% R.H., noncondensing
Air Composition ........................................... No corrosive gases permitted

Preventative Maintenance and Cleaning
No preventative maintenance is required. The EZ Series Touch Panel touchscreen should be cleaned as needed with warm, soapy water. See Chapter 5, Maintenance, for a list of compatible/incompatible chemicals and compounds.
# Chapter 1 - Getting Started

The table, below provides an overall description of the topics covered within this manual.

<table>
<thead>
<tr>
<th>Chapters</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong></td>
<td>Getting Started</td>
</tr>
<tr>
<td><strong>2</strong></td>
<td>Models, Features, and Accessories</td>
</tr>
<tr>
<td><strong>3</strong></td>
<td>Specifications</td>
</tr>
<tr>
<td><strong>4</strong></td>
<td>Installation</td>
</tr>
<tr>
<td><strong>5</strong></td>
<td>Maintenance &amp; Troubleshooting</td>
</tr>
<tr>
<td><strong>A</strong></td>
<td>Appendix A</td>
</tr>
</tbody>
</table>
Introduction

There are two manuals that you will need to use the EZ Series Touch Panel — this manual, the EZ Series Touch Panel Hardware User Manual, and the EZ Series Touch Panel Editor User Manual (included with P/N EZP-Paneledit, EZ Series Touch Panel Editor Programming Software). Don’t worry — you won’t be bouncing back and forth between them — and we’ll always let you know exactly where the information is that you will need for the next step.

These manuals will take you through the steps necessary to get your EZ Series Touch Panel up and running in the shortest possible time. Although your familiarity with programmable graphic operator interface devices will determine how quickly you move through the steps — it’s as easy as 1 — 2 — 3. The flow chart below will show you where you need to go, and — how to get there from here!

1 Install Software

EZ Series Touch Panel Editor Programming Software is a user-friendly Windows-based program that allows you to design screens for the EZ Series Touch Panel operator interfaces. To install EZ Series Touch Panel Editor Programming Software, run the install program from the CD and follow the onscreen prompts. For more information, please refer to the EZ Series Touch Panel Editor Programming Software Manual.

You can start designing your screen off-line immediately after installing EZ Series Touch Panel Editor Programming Software — you don’t need to have the hardware installed!

2 Install Hardware

This manual will provide you with the instructions you need to install the EZ Series Touch Panel. Included are mounting diagrams for both Stud Mounting (page 18) and DIN Clip Mounting (page 27). Connections and wiring requirements are provided beginning on page 29. Option Card connector information is provided beginning on page 32. Communications Setup instructions begin on page 41. For Maintenance information, see Chapter 5 (page 45) and for Troubleshooting, refer to page 55.

3 Design Screens

You may design your screen on-line or off-line (without connection to an EZ Series Touch Panel). When designing screens with EZ Series Touch Panel Programming Software, you will program objects on the EZ Series Touch Panel providing a graphical interface designed to interchange and display data from a PLC by merely viewing or touching the screen — all unique to your particular application. For instructions on how to design screens, refer to the EZ Series Touch Panel Editor User Manual.
What you need to get started:

Hardware

- EZ Series Touch Panel
- 24 Volt Power Supply (24 VDC with 1.5A supply is recommended) (1.5 Amp Slo-Blo input power fuse is also recommended)
- Programming Cable (P/N EZ-PGM/CBL)
- PLC Interface Cable (see page 12 for part numbers)
- PC requirements:
  - IBM or compatible PC (Pentium II, AMD Athlon or better) with a mouse and separate serial port
  - VGA display with at least 800 x 600 resolution (1024 x 768 recommended)
  - Standard Windows 98/NT4.0/2000® /XP Home/XP Pro Requirements
  - CD ROM Drive

Software

- EZ Series Touch Panel Editor (P/N EZ-PANELEDIT)

Need HELP?

![Help is never more than a mouse click or a key press away!]

Onscreen HELP

One of the most important features of the EZ Series Touch Panel Editor is the availability of context sensitive onscreen help. To access the Help windows, simply press the F1 function key while on the topic where you need help. For example, if you need help while working with screens, hit the F1 function key while in that area and a popup window will be displayed. Also, most dialog boxes contain a Help button, you may click on it to get help, too!

Fly-Over HELP

When the mouse cursor comes to rest over any tool bar or object button for a short while, a small window will appear containing a brief description of the function of that particular button. The window will disappear as soon as the cursor has been moved off the button.

PLC HELP

If you need help with the PLC to EZ Series Touch Panel Interface, consult the EZ Series Touch Panel Enhanced Editor Programming Software Help. Each PLC Driver has a Help Topic that lists the error messages and provides an explanation for each. Also provided are PLC to EZ Series Touch Panel wiring diagrams.
Technical Support
Although most questions can be answered with EZ Series Touch Panel HELP or the manuals, if you are still having difficulty with a particular aspect of installation or screen design, technical support is available at 1-877-774-EASY or FAX us at 1-877-775-EASY. Visit our website at www.EZAutomation.net.

PLEASE NOTE: The Troubleshooting section of this manual (see page 55) should be able to help you with most problems you might encounter.
### Chapter 2 - Models, Features, & Accessories Models

#### 6-inch Monochrome EZ Series Touch Panel Models

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>User Memory</th>
<th>Field Expandable User RAM?</th>
<th>Nonvolatile Flash Backup Card Option for Program Backup?</th>
<th>PLC Drivers Supported?</th>
<th>NEMA</th>
</tr>
</thead>
<tbody>
<tr>
<td>EZ-S6M-R</td>
<td>6&quot; Mono with Standard Bezel</td>
<td>256KB</td>
<td>No</td>
<td>No</td>
<td>See Note below</td>
<td>NEMA 4, 4X</td>
</tr>
<tr>
<td>&quot;EZ-S6W-RS&quot;</td>
<td>6&quot; Mono White on Blue with Slim Bezel</td>
<td>256KB</td>
<td>No</td>
<td>No</td>
<td>All Serial Drivers</td>
<td>NEMA 1, FDA</td>
</tr>
<tr>
<td>&quot;EZ-S6W-RSU&quot;</td>
<td>6&quot; Mono White on Blue with Slim Bezel</td>
<td>256KB</td>
<td>No</td>
<td>No</td>
<td>ONLY Universal Ethernet</td>
<td>NEMA 1, FDA</td>
</tr>
<tr>
<td>EZ-S6M-RS</td>
<td>6&quot; Mono with Slim Bezel</td>
<td>256KB</td>
<td>No</td>
<td>No</td>
<td>See Note below</td>
<td>NEMA 1, FDA</td>
</tr>
<tr>
<td>EZ-S6M-F</td>
<td>6&quot; Mono with Standard Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus EZ Ethernet</td>
<td>NEMA 4, 4X</td>
</tr>
<tr>
<td>EZ-S6M-FH</td>
<td>6&quot; Mono with Standard Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus AB DH+ and Remove I/O</td>
<td>NEMA 4, 4X</td>
</tr>
<tr>
<td>EZ-S6M-FS</td>
<td>6&quot; Mono with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus EZ Ethernet</td>
<td>NEMA 1, FDA</td>
</tr>
<tr>
<td>EZ-S6M-FSH</td>
<td>6&quot; Mono with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus AB DH+ and Remove I/O</td>
<td>NEMA 1, FDA</td>
</tr>
<tr>
<td>&quot;EZ-S6M-FSD&quot;</td>
<td>6&quot; Mono with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus DeviceNet</td>
<td>NEMA 1, FDA</td>
</tr>
<tr>
<td>&quot;EZ-S6M-FSE&quot;</td>
<td>6&quot; Mono with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus Ethernet I/P</td>
<td>NEMA 1, FDA</td>
</tr>
<tr>
<td>&quot;EZ-S6M-FSM&quot;</td>
<td>6&quot; Mono with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus MB+</td>
<td>NEMA 1, FDA</td>
</tr>
<tr>
<td>&quot;EZ-S6M-FSP&quot;</td>
<td>6&quot; Mono with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus Profibus</td>
<td>NEMA 1, FDA</td>
</tr>
<tr>
<td>&quot;EZ-S6M-FST&quot;</td>
<td>6&quot; Mono Grayscale with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus ModBus TCP/IP</td>
<td>NEMA 1, FDA</td>
</tr>
<tr>
<td>&quot;EZ-S6M-FSC&quot;</td>
<td>6&quot; Mono Grayscale with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus CC Link</td>
<td>NEMA 1, FDA</td>
</tr>
<tr>
<td>&quot;EZ-S6M-FSU&quot;</td>
<td>6&quot; Mono Grayscale with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>ONLY Universal Ethernet</td>
<td>NEMA 1, FDA</td>
</tr>
<tr>
<td>&quot;EZ-S6M-ES&quot;</td>
<td>6&quot; Mono Grayscale with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>ONLY EZ Series PLC</td>
<td>NEMA 1, FDA</td>
</tr>
</tbody>
</table>

**EZAutomation EZ Series Touch Panel NEMA Ratings**

The NEMA rating of all operator interface products in this manual relates to only the front bezel since only the front bezel is exposed to the external environment and the backend is enclosed inside an appropriately sealed enclosure used by the customer. The Touchpanels in this manual have either NEMA 1 FDA Compliant or NEMA 4, 4X (indoor) rating. Please note that the touchpanels that are rated NEMA 1 FDA Compliant can handle typical NEMA 4, 4X environments such as water seepage or hosedown. The only reason these panels do not have NEMA 4, 4X rating is because the FDA Compliant plastic material is not UL approved for NEMA 4 flammability.
6-inch Color EZ Series Touch Panel Models

In the table below are the 6-inch Color EZ Series Touch Panel models. If using an option board connector, you cannot use the PLC port at the same time to connect to another type PLC. The panel supports only one PLC driver at a time.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>User Memory</th>
<th>Field Expandable User RAM?</th>
<th>Nonvolatile Flash Backup Card Option for Program Backup?</th>
<th>PLC Drivers Supported?</th>
<th>NEMA</th>
</tr>
</thead>
<tbody>
<tr>
<td>EZ-S6C-K</td>
<td>6&quot; STN Color with Standard Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>ONLY Direct Logic PLC</td>
<td>4, 4X</td>
</tr>
<tr>
<td>EZ-S6C-KS</td>
<td>6&quot; STN Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>ONLY Direct Logic PLC</td>
<td>1, FDA</td>
</tr>
<tr>
<td>EZ-S6C-F</td>
<td>6&quot; STN Color with Standard Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus EZ Ethernet</td>
<td>4, 4X</td>
</tr>
<tr>
<td>EZ-S6C-FH</td>
<td>6&quot; STN Color with Standard Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus DH+ and Remote I/O</td>
<td>4, 4X</td>
</tr>
<tr>
<td>EZ-S6C-FS</td>
<td>6&quot; STN Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus EZ Ethernet</td>
<td>1, FDA</td>
</tr>
<tr>
<td>EZ-T6C-FS</td>
<td>6&quot; TFT Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus EZ Ethernet</td>
<td>1, FDA</td>
</tr>
<tr>
<td>*EZ-S6C-FSD</td>
<td>6&quot; STN Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus DeviceNet</td>
<td>1, FDA</td>
</tr>
<tr>
<td>*EZ-T6C-FSD</td>
<td>6&quot; TFT Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus DeviceNet</td>
<td>1, FDA</td>
</tr>
<tr>
<td>*EZ-S6C-FSE</td>
<td>6&quot; STN Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus Ethernet I/P</td>
<td>1, FDA</td>
</tr>
<tr>
<td>*EZ-T6C-FSE</td>
<td>6&quot; TFT Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus Ethernet I/P</td>
<td>1, FDA</td>
</tr>
<tr>
<td>EZ-S6C-FSH</td>
<td>6&quot; STN Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus AB DH+ and Remote I/O</td>
<td>1, FAA</td>
</tr>
<tr>
<td>EZ-T6C-FSH</td>
<td>6&quot; TFT Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus AB DH+ and Remote I/O</td>
<td>1, FAA</td>
</tr>
<tr>
<td>EZ-S6C-FSM</td>
<td>6&quot; STN Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus MB+</td>
<td>1, FDA</td>
</tr>
<tr>
<td>EZ-T6C-FSM</td>
<td>6&quot; TFT Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus MB+</td>
<td>1, FDA</td>
</tr>
<tr>
<td>EZ-S6C-FSP</td>
<td>6&quot; STN Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus Profinbus</td>
<td>1, FDA</td>
</tr>
<tr>
<td>EZ-T6C-FSP</td>
<td>6&quot; TFT Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus Profinbus</td>
<td>1, FDA</td>
</tr>
<tr>
<td>*EZ-S6C-FST</td>
<td>6&quot; STN Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus ModBus TCP/IP</td>
<td>1, FAA</td>
</tr>
<tr>
<td>*EZ-T6C-FST</td>
<td>6&quot; TFT Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus ModBus TCP/IP</td>
<td>1, FAA</td>
</tr>
<tr>
<td>*EZ-S6C-FSC</td>
<td>6&quot; STN Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus CC Link</td>
<td>1, FAA</td>
</tr>
<tr>
<td>*EZ-S6C-FSU</td>
<td>6&quot; STN Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>ONLY Universal Ethernet</td>
<td>1, FAA</td>
</tr>
<tr>
<td>*EZ-T6C-FSU</td>
<td>6&quot; TFT Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>ONLY Universal Ethernet</td>
<td>1, FAA</td>
</tr>
<tr>
<td>*EZ-S6C-ES</td>
<td>6&quot; STN Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>ONLY EZ Series PLC</td>
<td>1, FDA</td>
</tr>
<tr>
<td>*EZ-T6C-ES</td>
<td>6&quot; TFT Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>ONLY EZ Series PLC</td>
<td>1, FDA</td>
</tr>
</tbody>
</table>

*Indicates NEW EZ Series Touch Panel Models.

NOTE: Supports Automation Direct (Direct Logic) serial drivers including H2-WPLC-XX.
8-inch Color EZ Series Touch Panel Models

In the table below are the 8-inch EZ Series Touch Panel models. If using an option board connector, you cannot use the PLC port at the same time to connect to another type PLC. The panel supports only one PLC driver at a time.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>User Memory</th>
<th>Field Expandable User RAM?</th>
<th>Nonvolatile Flash Backup Card Option for Program Backup?</th>
<th>PLC Drivers Supported?</th>
<th>NEMA</th>
</tr>
</thead>
<tbody>
<tr>
<td>EZ-S8C-F</td>
<td>8&quot; STN Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus EZ Ethernet</td>
<td>NEMA 4, 4X</td>
</tr>
<tr>
<td>EZ-T8C-F</td>
<td>8&quot; TFT Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus EZ Ethernet</td>
<td>NEMA 4, 4X</td>
</tr>
<tr>
<td>EZ-S8C-FH</td>
<td>8&quot; STN Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus AB DH+ and Remote I/O</td>
<td>NEMA 4, 4X</td>
</tr>
<tr>
<td>EZ-T8C-FH</td>
<td>8&quot; TFT Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus AB DH+ and Remote I/O</td>
<td>NEMA 4, 4X</td>
</tr>
<tr>
<td>EZ-S8C-FS</td>
<td>8&quot; STN Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus EZ Ethernet</td>
<td>NEMA 1, FDA</td>
</tr>
<tr>
<td>*EZ-S8C-FSD</td>
<td>8&quot; STN Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus DeviceNet</td>
<td>NEMA 1, FDA</td>
</tr>
<tr>
<td>*EZ-S8C-FD</td>
<td>8&quot; STN Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus DeviceNet</td>
<td>NEMA 4, 4X</td>
</tr>
<tr>
<td>*EZ-T8C-FD</td>
<td>8&quot; TFT Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus DeviceNet</td>
<td>NEMA 4, 4X</td>
</tr>
<tr>
<td>*EZ-S8C-FSE</td>
<td>8&quot; STN Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus Ethernet I/P</td>
<td>NEMA 1, FDA</td>
</tr>
<tr>
<td>*EZ-S8C-FE</td>
<td>8&quot; STN Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus Ethernet I/P</td>
<td>NEMA 4, 4X</td>
</tr>
<tr>
<td>*EZ-T8C-FE</td>
<td>8&quot; TFT Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus Ethernet I/P</td>
<td>NEMA 4, 4X</td>
</tr>
<tr>
<td>EZ-S8C-FSH</td>
<td>8&quot; STN Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus AB DH+ and Remote I/O</td>
<td>NEMA 4, 4X</td>
</tr>
<tr>
<td>*EZ-S8C-FSM</td>
<td>8&quot; STN Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus MB+</td>
<td>NEMA 1, FDA</td>
</tr>
<tr>
<td>*EZ-S8C-FM</td>
<td>8&quot; STN Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus MB+</td>
<td>NEMA 4, 4X</td>
</tr>
<tr>
<td>*EZ-T8C-FM</td>
<td>8&quot; TFT Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus MB+</td>
<td>NEMA 4, 4X</td>
</tr>
<tr>
<td>*EZ-S8C-FSP</td>
<td>8&quot; STN Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus Profibus</td>
<td>NEMA 1, FDA</td>
</tr>
<tr>
<td>*EZ-S8C-FP</td>
<td>8&quot; STN Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus Profibus</td>
<td>NEMA 4, 4X</td>
</tr>
<tr>
<td>*EZ-T8C-FP</td>
<td>8&quot; TFT Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus Profibus</td>
<td>NEMA 4, 4X</td>
</tr>
<tr>
<td>*EZ-S8C-FST</td>
<td>8&quot; Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus ModBus TCP/IP</td>
<td>NEMA 1, FDA</td>
</tr>
<tr>
<td>*EZ-S8C-FT</td>
<td>8&quot; STN Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus ModBus TCP/IP</td>
<td>NEMA 4, 4X</td>
</tr>
<tr>
<td>*EZ-T8C-FT</td>
<td>8&quot; TFT Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus ModBus TCP/IP</td>
<td>NEMA 4, 4X</td>
</tr>
<tr>
<td>*EZ-S8C-FSC</td>
<td>8&quot; STN Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus CC Link</td>
<td>NEMA 1, FDA</td>
</tr>
<tr>
<td>*EZ-S8C-FC</td>
<td>8&quot; STN Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus CC Link</td>
<td>NEMA 4, 4X</td>
</tr>
<tr>
<td>*EZ-T8C-FC</td>
<td>8&quot; TFT Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus CC Link</td>
<td>NEMA 4, 4X</td>
</tr>
<tr>
<td>*EZ-S8C-FSU</td>
<td>8&quot; Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>ONLY Universal Ethernet</td>
<td>NEMA 1, FDA</td>
</tr>
<tr>
<td>*EZ-S8C-FU</td>
<td>8&quot; STN Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>ONLY Universal Ethernet</td>
<td>NEMA 4, 4X</td>
</tr>
<tr>
<td>*EZ-T8C-FU</td>
<td>8&quot; TFT Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>ONLY Universal Ethernet</td>
<td>NEMA 4, 4X</td>
</tr>
<tr>
<td>*EZ-T8C-E</td>
<td>8&quot; TFT Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>ONLY EZ Series PLC</td>
<td>NEMA 4, 4X</td>
</tr>
</tbody>
</table>

*Indicates NEW EZ Series Touch Panel Models.
10-inch and 15-inch EZ Series Touch Panel Models

In the table below are the 10-inch and 15-inch EZ Series Touch Panel models. If using an option board connector, you cannot use the PLC port at the same time to connect to another type PLC. The panel supports only one PLC driver at a time.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>User Memory</th>
<th>Field Expandable User RAM?</th>
<th>Nonvolatile Flash Backup Card Option for Program Backup?</th>
<th>PLC Drivers Supported?</th>
<th>NEMA</th>
</tr>
</thead>
<tbody>
<tr>
<td>EZ-T10C-F</td>
<td>10.4” TFT Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All Serial Drivers</td>
<td>NEMA 4, 4X</td>
</tr>
<tr>
<td>EZ-T10C-FH</td>
<td>10.4” TFT Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus AB DH+ and Remote I/O</td>
<td>NEMA 4, 4X</td>
</tr>
<tr>
<td>EZ-T10C-FS</td>
<td>10.4” TFT Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus EZ Ethernet</td>
<td>NEMA 1, FDA</td>
</tr>
<tr>
<td>EZ-T10C-FD</td>
<td>10.4” TFT Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus DeviceNet I/O</td>
<td>NEMA 4, 4X</td>
</tr>
<tr>
<td>EZ-T10C-FSD</td>
<td>10.4” TFT Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus DeviceNet I/O</td>
<td>NEMA 1, FDA</td>
</tr>
<tr>
<td>EZ-T10C-FE</td>
<td>10.4” TFT Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus Ethernet I/P</td>
<td>NEMA 4, 4X</td>
</tr>
<tr>
<td>EZ-T10C-FSE</td>
<td>10.4” TFT Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus Ethernet I/P</td>
<td>NEMA 1, FDA</td>
</tr>
<tr>
<td>EZ-T10C-FSH</td>
<td>10.4” TFT Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus AB DH+ and Remote I/O</td>
<td>NEMA 1, FDA</td>
</tr>
<tr>
<td>EZ-T10C-FSM</td>
<td>10.4” TFT Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus Modbus Plus</td>
<td>NEMA 4, 4X</td>
</tr>
<tr>
<td>EZ-T10C-FP</td>
<td>10.4” TFT Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus Profibus</td>
<td>NEMA 1, FDA</td>
</tr>
<tr>
<td>EZ-T10C-FSP</td>
<td>10.4” TFT Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus Profibus</td>
<td>NEMA 4, 4X</td>
</tr>
<tr>
<td>EZ-T10C-FT</td>
<td>10.4” TFT Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus Modbus TCP/IP</td>
<td>NEMA 4, 4X</td>
</tr>
<tr>
<td>EZ-T10C-FC</td>
<td>10.4” TFT Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus CC Link</td>
<td>NEMA 4, 4X</td>
</tr>
<tr>
<td>EZ-T10C-FST</td>
<td>10.4” TFT Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus Modbus TCP/IP</td>
<td>NEMA 1, FDA</td>
</tr>
<tr>
<td>EZ-T10C-FSC</td>
<td>10.4” TFT Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus CC Link</td>
<td>NEMA 4, 4X</td>
</tr>
<tr>
<td>EZ-T10C-FU</td>
<td>10.4” TFT Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>ONLY Universal Ethernet</td>
<td>NEMA 4, 4X</td>
</tr>
<tr>
<td>EZ-T10C-FCU</td>
<td>10.4” TFT Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>ONLY Universal Ethernet</td>
<td>NEMA 1, FDA</td>
</tr>
<tr>
<td>EZ-T10C-E</td>
<td>10.4” TFT Color with Slim Bezel</td>
<td>512KB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>ONLY EZ Series PLC</td>
<td>NEMA 4, 4X</td>
</tr>
<tr>
<td>EZ-T15C-FS</td>
<td>15” TFT Color with Slim Bezel</td>
<td>1MB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus EZ Ethernet</td>
<td>NEMA 1, FDA</td>
</tr>
<tr>
<td>EZ-T15C-FSD</td>
<td>15” TFT Color with Slim Bezel</td>
<td>1MB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus DeviceNet I/O</td>
<td>NEMA 1, FDA</td>
</tr>
<tr>
<td>EZ-T15C-FSE</td>
<td>15” TFT Color with Slim Bezel</td>
<td>1MB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus Ethernet IP</td>
<td>NEMA 1, FDA</td>
</tr>
<tr>
<td>EZ-T15C-FSU</td>
<td>15” TFT Color with Slim Bezel</td>
<td>1MB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus AB DH+ and Remote I/O</td>
<td>NEMA 1, FDA</td>
</tr>
<tr>
<td>EZ-T15C-FSH</td>
<td>15” TFT Color with Slim Bezel</td>
<td>1MB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus DeviceNet I/O</td>
<td>NEMA 1, FDA</td>
</tr>
<tr>
<td>EZ-T15C-FSM</td>
<td>15” TFT Color with Slim Bezel</td>
<td>1MB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus Modbus Plus</td>
<td>NEMA 1, FDA</td>
</tr>
<tr>
<td>EZ-T15C-FSP</td>
<td>15” TFT Color with Slim Bezel</td>
<td>1MB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus Profibus</td>
<td>NEMA 1, FDA</td>
</tr>
<tr>
<td>EZ-T15C-FST</td>
<td>15” TFT Color with Slim Bezel</td>
<td>1MB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus Modbus TCP/IP</td>
<td>NEMA 1, FDA</td>
</tr>
<tr>
<td>EZ-T15C-FSC</td>
<td>15” TFT Color with Slim Bezel</td>
<td>1MB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>All, plus CC Link</td>
<td>NEMA 1, FDA</td>
</tr>
<tr>
<td>EZ-T15C-FSU</td>
<td>15” TFT Color with Slim Bezel</td>
<td>1MB</td>
<td>Yes, to 1 or 2 MB</td>
<td>Yes</td>
<td>ONLY Universal Ethernet</td>
<td>NEMA 1, FDA</td>
</tr>
</tbody>
</table>
Features

- Pre-built panel components for easy screen design
- Screen Objects such as: Toggle Switch, Slide Switch, Selector Switch, Throw Switch, Thumbwheel Object, Meters, PID Face plates, and Analog/Digital Clock
- Flash memory-based design for easy firmware upgrade
- Field expandable user RAM (not all models)
- Nonvolatile flash card option for user program backup (not all models)
- Color models support 128-color palette for components and bitmaps
- 16 shades of gray on monochrome models
- Multiple languages (up to 9)
- Two communications ports — Computer (RS-232C) and (RS-232C, RS-422A, or RS-485A)
- Up to 999 screens
- Built-in clock and calendar or reference the PLC clock
- Built-in soft keypad for numeric and alphanumeric entry
- Password Protection for every touch object
- Passwords for up to 8 user groups
- 16 level undo and redo
- Import bitmaps
- Serial Printer support
- 40-character tag names allow you to use meaningful names for PLC memory locations instead of cryptic PLC addresses
- New features including: overlapping of objects, free-sizing of touch objects, Pick and Apply Attributes, display address
## PLCs Supported by the EZ Series Touch Panels

<table>
<thead>
<tr>
<th>PLC Brand</th>
<th>Model</th>
<th>Protocols Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EZAutomation</strong></td>
<td><strong>EZ Series PLC</strong></td>
<td>EZ Protocol</td>
</tr>
<tr>
<td>Allen Bradley</td>
<td>MicroLogix 1000/1200/1500, SLC500, 5/01, 5/02, 5/03</td>
<td>DH 485/AIC/AIC+</td>
</tr>
<tr>
<td></td>
<td>MicroLogix 1000/1200/1500SLC 5/03, 5/04, and 5/05</td>
<td>DF1 Half Duplex/DF1 Full Duplex</td>
</tr>
<tr>
<td></td>
<td>SLC 504, PLC5</td>
<td>DH+ (Option Card)</td>
</tr>
<tr>
<td></td>
<td>PLC 5</td>
<td>DF1</td>
</tr>
<tr>
<td></td>
<td>PLC 2, 3, and 5</td>
<td>Remote I/O (with DH+ Plus Option Card)</td>
</tr>
<tr>
<td>Aromat</td>
<td>Aromat</td>
<td>Mewtocol COM</td>
</tr>
<tr>
<td>Control Techniques</td>
<td>Unidrive 2-wire, 4-wire</td>
<td>Binary</td>
</tr>
<tr>
<td>Control Technology Corporation (CTC)</td>
<td>CTC 2600, 2700, and 5100</td>
<td>CTC Binary</td>
</tr>
<tr>
<td>DeviceNet</td>
<td>DeviceNet I/O</td>
<td>DeviceNet I/O (Option Card)</td>
</tr>
<tr>
<td>Ethernet</td>
<td>Control Logic, Micro Logic, Compact Logic, GE Versamax</td>
<td>Ethernet I/P, SRTP, DF1, Modbus TCP/IP</td>
</tr>
<tr>
<td>General Electric</td>
<td>90/30 and 90/70 Versamax</td>
<td>SNPX/SNP</td>
</tr>
<tr>
<td>Iddec</td>
<td>Iddec</td>
<td>Computer Link</td>
</tr>
<tr>
<td>Mitsubishi</td>
<td>FX Series (all)</td>
<td>FX, Direct</td>
</tr>
<tr>
<td></td>
<td>CC Link</td>
<td>CC Link Protocol</td>
</tr>
<tr>
<td>Modicon</td>
<td>984 CPU, Quantum 113 CPU, AEG Modicon Micro Series 110, CPU: 311-xx, 411-xx, 512-xx, 612-xx</td>
<td>Modbus RTU</td>
</tr>
<tr>
<td></td>
<td>984 Series, Quantum Series</td>
<td>Modicon Plus (Option Card)</td>
</tr>
<tr>
<td>Omron</td>
<td>C200, C500, CQM1, CPM1, CPM2</td>
<td>Host Link</td>
</tr>
<tr>
<td>Profibus</td>
<td>Profibus-DP</td>
<td>Generic Profibus DP (Option Card)</td>
</tr>
<tr>
<td>Direct Logic</td>
<td>DL105</td>
<td>K-Sequence, DirectNet, Modbus (Koyo Addressing)</td>
</tr>
<tr>
<td></td>
<td>DL105</td>
<td>K-Sequence</td>
</tr>
<tr>
<td>DL205</td>
<td>D2-230</td>
<td>K-Sequence</td>
</tr>
<tr>
<td></td>
<td>D2-240</td>
<td>K-Sequence; DirectNet</td>
</tr>
<tr>
<td></td>
<td>D2-250/D2-250 - 1/260</td>
<td>K-Sequence; DirectNet; ModBus (Koyo addressing)</td>
</tr>
<tr>
<td></td>
<td>D2-240/250 w/DCM</td>
<td>DirectNet</td>
</tr>
<tr>
<td>DL305</td>
<td>D3-330/330P</td>
<td>DirectNet</td>
</tr>
<tr>
<td></td>
<td>D3-340</td>
<td>DirectNet</td>
</tr>
<tr>
<td></td>
<td>D3-350</td>
<td>K-Sequence; DirectNet; ModBus (Koyo addressing)</td>
</tr>
<tr>
<td></td>
<td>D3-350 w/DCM</td>
<td>DirectNet</td>
</tr>
<tr>
<td>DL405</td>
<td>D4-430</td>
<td>K-Sequence; DirectNet</td>
</tr>
<tr>
<td></td>
<td>D4-440</td>
<td>K-Sequence; DirectNet</td>
</tr>
<tr>
<td></td>
<td>D4-450</td>
<td>K-Sequence; DirectNet; ModBus (Koyo addressing)</td>
</tr>
<tr>
<td></td>
<td>All with DCM</td>
<td>DirectNet</td>
</tr>
<tr>
<td>Siemens</td>
<td>Siemens S7 MPI Adaptor</td>
<td>3964R</td>
</tr>
<tr>
<td></td>
<td>Siemens S7_200</td>
<td>Siemens S7_200</td>
</tr>
<tr>
<td>Square D Symax</td>
<td>300 Series CPU, 400 Series CPU</td>
<td>Symax</td>
</tr>
<tr>
<td>Texas Instruments</td>
<td>TI5X5 Series, TI505, TI545-1102, TI545-1104</td>
<td>TBP (Transparent ByteProtocol) or NITP (Non-Intelligent Terminal Protocol)</td>
</tr>
<tr>
<td>Uni-Telway</td>
<td>Telemecanique TSX 37 Micro</td>
<td>UNI-TE (Version 1.1)</td>
</tr>
<tr>
<td>Other</td>
<td>H2-WinPLC (Entivity (Think &amp; Do) V5.2 or later, check for version compatibility)</td>
<td>Entivity (Think &amp; Do) Modbus RTU (Serial Port)</td>
</tr>
</tbody>
</table>
Replacement and Optional Equipment

There are replacement parts and other optional equipment available to customize or upgrade EZ Series Touch Panel to fit your application. The table below is a list of available equipment. Instructions, if necessary, on how to install this equipment to upgrade your unit are also provided. (For instructions to mount the

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EZ-PANELEDIT</td>
<td>EZ Series Touch Panel Programming Software</td>
</tr>
<tr>
<td>EZ-PANEL-M</td>
<td>Hardware User Manual</td>
</tr>
<tr>
<td>EZ-RAM-1</td>
<td>512K RAM Card</td>
</tr>
<tr>
<td>EZ-RAM-2</td>
<td>1MB RAM Card</td>
</tr>
<tr>
<td>EZ-FLASH-1</td>
<td>512K Flash Card</td>
</tr>
<tr>
<td>EZ-FLASH-2</td>
<td>1MB Flash Card</td>
</tr>
<tr>
<td>EZ-FLASH-3</td>
<td>2MB Flash Card</td>
</tr>
<tr>
<td>EZ-ETHERNET</td>
<td>DirectLogic Ethernet Option Interface Card</td>
</tr>
<tr>
<td>EZ-ETHERPLUS</td>
<td>Modbus TC P/IP or DirectLogic Ethernet Option Card</td>
</tr>
<tr>
<td>EZ-BAT</td>
<td>Replacement 1/2 AA, 3.6 volt Lithium Battery</td>
</tr>
<tr>
<td>EZ-BRK-1</td>
<td>EZ Series Touch Panel optional D IN Mounting Clips (pk. of 2)</td>
</tr>
<tr>
<td>EZ-COMON3</td>
<td>15-pin male D-sub connectors with terminal blocks, for connecting RS422 network cable from EZ Series Touch Panels or EZ Series Text panels</td>
</tr>
<tr>
<td>EZ-PANEL6-GSK</td>
<td>(6&quot;) Standard Replacement Gasket</td>
</tr>
<tr>
<td>EZ-PANEL8-GSK</td>
<td>(8&quot;) Standard Replacement Gasket</td>
</tr>
<tr>
<td>EZ-PANEL10-GSK</td>
<td>(10&quot;) Standard Replacement Gasket</td>
</tr>
<tr>
<td>EZ-PANEL-STUDS</td>
<td>Spare mounting studs (four with nuts)</td>
</tr>
<tr>
<td>EZ-6SLIMF-GSK</td>
<td>(6&quot;) Slim bezel FDA replacement gasket</td>
</tr>
<tr>
<td>EZ-8SLIMF-GSK</td>
<td>(8&quot;) Slim bezel FDA replacement gasket</td>
</tr>
<tr>
<td>EZ-10SLIMF-GSK</td>
<td>(10&quot;) Slim bezel FDA replacement gasket</td>
</tr>
<tr>
<td>EZ-15SLIMF-GSK</td>
<td>(15&quot;) Slim bezel FDA replacement gasket</td>
</tr>
<tr>
<td>EZ-COV6</td>
<td>Pack of 3 protective shields for any 6&quot; EZ Series Touch panel</td>
</tr>
<tr>
<td>EZ-COV8</td>
<td>Pack of 3 protective shields for any 8&quot; EZ Series Touch panel</td>
</tr>
<tr>
<td>EZ-COV10</td>
<td>Pack of 3 protective shields for any 10&quot; EZ Series Touch panel</td>
</tr>
<tr>
<td>EZ-COV15</td>
<td>Pack of 3 protective shields for any 15&quot; EZ Series Touch panel</td>
</tr>
</tbody>
</table>

To order from this list, phone EZAutomation at 1-877-774-EASY.
### PLC Cable Part Numbers

<table>
<thead>
<tr>
<th>Cable Part Number</th>
<th>Cable Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EZ-CBL</td>
<td>RS232C shielded cable to connect any EZ Series Touch Panel, Enhanced to EZ Series Touch PLC. 15 pin D-shell male connector to 9 pin D-shell male connector.</td>
</tr>
<tr>
<td>EZ-2CLB</td>
<td>10' RS232 shielded cable to connect any EZ Series Touch Panel, Enhanced to DL05, DL06, DL105, DL205, D3-360 or D4-450 CPU. 15 pin D-shell male connector to RJ12 modular connector.</td>
</tr>
<tr>
<td>EZ-2CBL-1</td>
<td>10' RS232 shielded cable to connect any EZ Series Touch Panel to a DL06, D2-250(-1) or D2-260 (bottom port) CPU. 15 pin D-shell male connector to 15 pin male HD.</td>
</tr>
<tr>
<td>EZ-3CBL</td>
<td>10' RS232 shielded cable to connect any EZ Series Touch Panel to a D3-340 CPU top or bottom port, 15 pin D-shell male connector to RJ11 modular connector.</td>
</tr>
<tr>
<td>EZ-4CBL-1</td>
<td>10' RS232 shielded cable to connect any EZ Series Touch Panel to DL405 (top port) CPU. 15 pin D-shell male connector to 15 pin D-shell male connector.</td>
</tr>
<tr>
<td>EZ-4CBL-2</td>
<td>10' RS 232C shielded cable to connect any EZ Series Touch Panel to a D2-DCM, D3-350 (bottom port), a D3-232-DCU installed on D3-333 or D3-340, or DL405 (bottom point) CPU.</td>
</tr>
<tr>
<td>EZ-PLC5-232CBL</td>
<td>6' shielded cable to connect any EZ Series Touch Panel to an AB Micrologix 1000, 1200, or 1500 CPU, 15 pin D-shell male connector to 8 pin DIN connector.</td>
</tr>
<tr>
<td>EZ-SLC-232-CBL</td>
<td>10' RS232 shielded cable to connect any EZ Series Touch Panel to an AB PLC 5/03, 5/04 or 5/05 CPU with DF-1 port. 15 pin D-shell male connector to 9 pin D-shell female connector.</td>
</tr>
<tr>
<td>EZ-ARCOL-CBL</td>
<td>10' RS232C shielded cable to connect any EZ Series Touch Panel to an AB SL500 CPU with C60D port. 15 pin D-shell male connector to 25 pin D-shell male connector.</td>
</tr>
<tr>
<td>EZ-OMRON-CBL</td>
<td>10' RS232C shielded cable to connect any EZ Series Touch Panel to Omron C200 or C500 with Hostlink protocol. 15 pin D-shell male connector to 25 pin D-shell male connector.</td>
</tr>
<tr>
<td>EZ-CTRLUNI-CBL</td>
<td>10' RS232 shielded cable to connect any EZ Series Touch Panel to Control Techniques Unidrive 4-wire. 15 pin D-Shell male connector to 9 pin D-shell female connector.</td>
</tr>
<tr>
<td>EZ-CTRLUNI-CBL-1</td>
<td>10' RS485 shielded cable to connect any EZ Series Touch Panel to Control Techniques Unidrive 2-wire. 15 pin D-Shell male connector to 25 pin D-shell female connector.</td>
</tr>
<tr>
<td>EZ-CTCBI-CBL</td>
<td>10' RS232 shielded cable to connect any EZ Series Touch Panel to Control Technology Corporation (CTC). 15 pin D-Shell male connector to RJ12.</td>
</tr>
<tr>
<td>EZ-IDECM-CBL</td>
<td>10' RS485 shielded cable to connect any EZ Series Touch Panel to IDEC Micro 3 PLC. 15 pin D-Shell male connector to 8-pin Mini DIN connector.</td>
</tr>
<tr>
<td>EZ-MODUNI-CBL</td>
<td>10' RS232 shielded cable to connect any EZ Series Touch Panel to Modicon Uni-Telway Telemecanique TSX 37 Micro PLC. 15 pin D-Shell male connector to 8 pin mini DIN connector.</td>
</tr>
<tr>
<td>EZ-MODRTU-CBL</td>
<td>10' RS232C shielded cable to connect any EZ Series Touch Panel to Modicon Modbus RTU. 15 pin D-Shell male connector to 9 pin D-shell male connector.</td>
</tr>
<tr>
<td>EZ-S7200-CBL</td>
<td>10' RS485 shielded cable to connect any EZ Series Touch Panel to Siemens S7 200 PLC. 15 pin D-Shell male connector to 9 pin D-shell male connector.</td>
</tr>
<tr>
<td>EZ-SYMAX-CBL</td>
<td>10' RS232 shielded cable to connect any EZ Series Touch Panel to Square-D symax. 15 pin D-Shell male connector to 9 pin D-shell male connector.</td>
</tr>
<tr>
<td>EZ-TX505-CBL</td>
<td>10' RS232C shielded cable to connect any EZ Series Touch Panel to Texas Instrument 505 Series PLC. 15 pin D-Shell male connector to 9 pin D-shell female connector.</td>
</tr>
<tr>
<td>EZ-IDECS-CBL</td>
<td>10' RS232C shielded cable to connect any EZ Series Touch Panel to IDEC Micro Smart PLC. 15 pin D-Shell male connector to 8 pin mini DIN male connector.</td>
</tr>
<tr>
<td>EZ-TX545-CBL</td>
<td>10' RS485 shielded cable to connect any EZ Series Touch Panel to Texas Instrument 545-1102 series PLC. 15 pin D-shell male connector to 9 pin D-shell male connector.</td>
</tr>
<tr>
<td>EZ-TX545-CBL1</td>
<td>10' RS485 shielded cable to connect any EZ Series Touch Panel to Texas Instrument 545-1104 PLC. 15 pin D-Shell male connector to 9 pin D-shell female connector.</td>
</tr>
<tr>
<td>EZ-MODRJ</td>
<td>10' RS232 Shielded Cable to connect any EZ Series to Modicon Micro PLC. 15-pin D-shell male connector to RJ45 connector.</td>
</tr>
<tr>
<td>EZ-PGMCBL</td>
<td>Programming Cable</td>
</tr>
</tbody>
</table>
# Chapter 3 - Specifications

**EZ Series Touch Panel Specifications — 6-inch Standard Bezel Models**

<table>
<thead>
<tr>
<th>Part Number</th>
<th><strong>EZ-S6W-RS</strong> (Nonexpandable)</th>
<th><strong>EZ-S6W-RSU</strong> (Universal Ethernet, No Flash/RAM expansion)</th>
<th><strong>EZ-S6M-F</strong> (All Serial Drivers)</th>
<th><strong>EZ-S6M-FH</strong> (DH+ Remote I/O)</th>
<th><strong>EZ-S6M-R</strong> (Non-expandable)</th>
<th><strong>EZ-S6M-FS</strong> (Full Featured)</th>
<th><strong>EZ-S6M-FSC</strong> (CC Link)</th>
<th><strong>EZ-S6M-FSE</strong> (Ethernet IP)</th>
<th><strong>EZ-S6M-FSM</strong> (Modbus Plus)</th>
<th><strong>EZ-S6M-FSP</strong> (Profinet)</th>
<th><strong>EZ-S6M-FST</strong> (Modbus TCP/IP)</th>
<th><strong>EZ-S6M-FSU</strong> (Universal Ethernet)</th>
<th><strong>EZ-S6M-ES</strong> (EZ Series PLC)</th>
<th><strong>EZ-S6M-RS</strong> (Non-expandable)</th>
<th><strong>EZ-S6C-F</strong> (All Serial Drivers)</th>
<th><strong>EZ-S6C-FH</strong> (DH+, Remote I/O)</th>
<th><strong>EZ-S6C-K</strong> (Koyo Only)</th>
</tr>
</thead>
</table>

## Specification
- 6" white on blue
- 6" gray scale
- 6" slim bezel gray scale
- 6" color

## Enclosure
- NEMA 1
- NEMA 4, 4X (indoor)
- NEMA 1, FDA Compliant
- NEMA 4, 4X (indoor)

## Display Type
- 5.7" STN (4 shades of blue)
- 5.7" STN (16 shades of gray)
- 5.7" STN (128 colors)

## Display View Area
- 4.72" x 3.5" (119.4 x 88.9 mm)

## Screen Pixels
- 320 x 240

## Brightness/Life
- 140 nits/25,000 hours
- 180 nits/25,000 hours

## Touch Screen
- 48 resistive cells (8 x 6)
- 192 resistive touch cells (16 x 12) except-ES and -RS models have 48 (8 x 6)
- 48 resistive touch cells (8 x 6)

## CPU Type
- Motorola Coldfire 32-bit CPU (40 MHz)

## Service Power
- 24 VDC (20-30 VDC operating range), 1.2A switching supply recommended

## Power
- 10 watts @ 24 VDC
- 12 watts @ 24 VDC
- 13 watts @ 24 VDC

## Agency Approval
- UL, CUL, CE pending
- UL, CUL, CE

## Operating Temp.
- 0 to 45 °C (32 to 113 °F)

## Storage Temp.
- -20 to 60 °C (-4 to 140 °F)

## Humidity
- 10 - 95% RH, noncondensing

## Electrical Noise
- NEMA ICS 2-230 showering arc
- ANSI C37.90a-1974 SWC Level C Chattering Relay Test

## Withstand Voltage
- 1000 VDC (1 minute), between power supply input terminal and protective ground (FG)

## Insulation Res.
- Over 20 M Ohm between power supply input terminal and protective ground (FG)

## Vibration
- 5 to 55Hz 2 G for 2 hours in the X, Y, and Z axes

## Shock
- 10 G for under 12 ms in the X, Y, and Z axes

## User Memory
- 256KB System RAM memory only
- (all except-R) 512KB system RAM memory, 512K and 1MB Option RAM Card for Memory Expansion; 1MB or 2MB Option Flash Card for Memory Backup/Transfer (-R)
- (all except-ES and -RS) 512KB system RAM memory, 512K and 1MB Option RAM Card for Memory Expansion; 1MB or 2MB Option Flash Card for Memory Backup/Transfer (-ES and -RS)
- 256KB System RAM memory only

## # of Screens
- Up to 999 limited memory

## Real Time Clock
- Built into panel (PLC clock is still accessible if available)

## Screen Saver
- Yes, Backlight off

## Serial Communications
- PLC port: RS-232/RS-422/RS-485 9-pin D-sub (female)
- Download/program port: RS-232/RS-422/RS-485 15-pin D-sub (female)

## External Dimensions
- 6.145" x 8.048" x 2.433" (156.078 x 204.407 x 51.786mm) See Page 20
- 7.30" x 8.94" x 2.29" (185.42 x 226.076 x 58.166 mm) See Page 19
- 6.145" x 8.048" x 2.433" (156.078 x 204.407 x 51.786 mm) See Page 20
- 7.30" x 8.94" x 2.29" (185.42 x 226.076 x 58.166 mm) See Page 17

## Weight
- 1.7 lbs
- 1.4 lbs
- 1.7 lbs
- 1.4 lbs
## EZ Series Touch Panel Specifications — 6-inch and 8-inch Standard Bezel Models

<table>
<thead>
<tr>
<th>Part Numbers</th>
<th>Specification</th>
<th>6&quot; color slim bezel</th>
<th>8&quot; color slim bezel</th>
</tr>
</thead>
<tbody>
<tr>
<td>EZ-S6C-FS</td>
<td>Enclosure</td>
<td>NEMA 1, FDA Compliant</td>
<td>NEMA 4, 4X (indoor)</td>
</tr>
<tr>
<td>EZ-S6C-FSC</td>
<td>Display Type</td>
<td>5.7&quot; STN (128-color palette)</td>
<td>5.7&quot; TFT (128-color palette)</td>
</tr>
<tr>
<td>EZ-S6C-FSD</td>
<td>Display View Area</td>
<td>4.65&quot; x 3.5&quot; (118.1 x 88.9 mm)</td>
<td>6.65&quot; x 5.024&quot; (168.9 x 127.61 mm)</td>
</tr>
<tr>
<td>EZ-S6C-ES</td>
<td>Screen Pixels</td>
<td>320 x 240</td>
<td>640 x 480</td>
</tr>
<tr>
<td>EZ-S6C-KS</td>
<td>Brightness/Life</td>
<td>180 nits/25,000 hours</td>
<td>200 nits/50,000 hours</td>
</tr>
<tr>
<td>EZ-S8C-FS</td>
<td>Touch Screen</td>
<td>192 resistive touch cells (16 x 12)</td>
<td></td>
</tr>
<tr>
<td>EZ-S8C-FSC</td>
<td>CPU Type</td>
<td>Motorola Coldfire 32-bit CPU (40 MHz)</td>
<td></td>
</tr>
<tr>
<td>EZ-S8C-FSD</td>
<td>Service Power</td>
<td>24 VDC (20-30 VDC operating range), 1.5A switching supply recommended</td>
<td></td>
</tr>
<tr>
<td>EZ-S8C-FSE</td>
<td>Power</td>
<td>13 watts @ 24 VDC</td>
<td>15 watts @ 24 VDC</td>
</tr>
<tr>
<td>EZ-S8C-FSH</td>
<td>Agency Approval</td>
<td>UL, CUL, CE pending</td>
<td>UL, CUL, CE pending</td>
</tr>
<tr>
<td>EZ-S8C-FSM</td>
<td>Operating Temp.</td>
<td>0 to 50 °C (32 to 122 °F)</td>
<td>0 to 55 °C (32 to 131 °F)</td>
</tr>
<tr>
<td>EZ-S8C-FSP</td>
<td>Storage Temp.</td>
<td>-25 to 60 °C (-13 to 140 °F)</td>
<td>-25 to 65 °C (-13 to 149 °F)</td>
</tr>
<tr>
<td>EZ-S8C-FSPU</td>
<td>Humidity</td>
<td>10 - 95% RH, noncondensing</td>
<td></td>
</tr>
<tr>
<td>EZ-S8C-FSU</td>
<td>Electrical Noise</td>
<td>NEMA ICS 2-230 showering arc ANSI C37.90a-1974 SWC Level C Chattering Relay Test</td>
<td></td>
</tr>
<tr>
<td>EZ-S8C-FS</td>
<td>Withstand Voltage</td>
<td>1000 VDC (1 minute), between power supply input terminal and protective ground (FG)</td>
<td></td>
</tr>
<tr>
<td>EZ-S8C-FFS</td>
<td>Insulation Res.</td>
<td>Over 20 M Ohm between power supply input terminal and protective ground (FG)</td>
<td></td>
</tr>
<tr>
<td>EZ-S8C-FFU</td>
<td>Vibration</td>
<td>5 to 55Hz 2 G for 2 hours in the X, Y and Z axes</td>
<td></td>
</tr>
<tr>
<td>EZ-S8C-FFSU</td>
<td>Shock</td>
<td>10 G for under 12 ms in the X, Y and axes</td>
<td></td>
</tr>
<tr>
<td>EZ-S8C-FSPU</td>
<td>User Memory</td>
<td>512KB system RAM memory, 512K and 1MB Option RAM Card for Memory Expansion; 1MB or 2MB Option Flash Card for Memory Backup/Transfer</td>
<td></td>
</tr>
<tr>
<td>EZ-S8C-FSU</td>
<td># of Screens</td>
<td>Up to 999 limited memory</td>
<td></td>
</tr>
<tr>
<td>EZ-S8C-FS</td>
<td>Real Time Clock</td>
<td>Built into panel (PLC clock is still accessible if available)</td>
<td></td>
</tr>
<tr>
<td>EZ-S8C-FSC</td>
<td>Screen Saver</td>
<td>Yes, Backlight off</td>
<td></td>
</tr>
<tr>
<td>EZ-S8C-FSE</td>
<td>External Dimensions</td>
<td>6.145&quot; x 8.048&quot; x 2.433&quot; (156.078 x 204.407 x 51.786mm) See Page 20</td>
<td>8.748&quot; x 10.894&quot; x 2.289&quot; (222.199 x 276.708 x 58.136 mm) See Page 21</td>
</tr>
<tr>
<td>EZ-S8C-FSU</td>
<td>Weight</td>
<td>1.7 lbs</td>
<td>2.9 lbs</td>
</tr>
</tbody>
</table>
### EZ Series Touch Panel Specifications — 8-inch, 10-inch, and 15-inch Slim Bezel Models

<table>
<thead>
<tr>
<th>Part Numbers</th>
<th>Specification</th>
<th>8” color slim bezel</th>
<th>10” color slim bezel</th>
<th>15” color slim bezel</th>
</tr>
</thead>
<tbody>
<tr>
<td>EZ-T8C-F</td>
<td>8” color slim bezel</td>
<td>10.4” TFT (128-color palette)</td>
<td>15.0” TFT (128-color palette)</td>
<td></td>
</tr>
<tr>
<td>EZ-T10C-F</td>
<td>10” color slim bezel</td>
<td>8.31” x 6.22” (211.07 x 158 mm)</td>
<td>12.02” x 9.01” (305.28 x 228.96 mm)</td>
<td></td>
</tr>
<tr>
<td>EZ-T15C-F</td>
<td>15” color slim bezel</td>
<td>640 x 480</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Enclosure**
- NEMA 4, 4X (indoor)
- NEMA 1, FDA Compliant

**Display Type**
- 8” TFT (128-color palette)
- 10.4” TFT (128-color palette)
- 15.0” TFT (128-color palette)

**Display View Area**
- 6.05” x 4.55” (153.7 x 115.8 mm)
- 8.31” x 6.22” (211.07 x 158 mm)
- 12.02” x 9.01” (305.28 x 228.96 mm)

**Screen Pixels**
- 640 x 480

**Brightness/Life**
- 200 nits/40,000 hours
- 250 nits/40,000 hours

**Touch Screen**
- 192 resistive touch cells (16 x 12)

**CPU Type**
- Motorola Coldfire 32-bit CPU (40 MHz)

**Service Power**
- 24 VDC (20-30 VDC operating range), 1.5A switching supply recommended

**Power**
- 18 Watts @ 24 VDC
- 33 Watts @ 24 VDC

**Agency Approval**
- UL, CUL, CE pending

**Operating Temp.**
- 0 to 55 °C (32 to 131 ºF)

**Storage Temp.**
- -25 to 65 °C (-13 to 149 °F)

**Humidity**
- 10 - 95% RH, noncondensing

**Electrical Noise**
- NEMA ICS 2-230 showering arc ANSI C37.90a-1974 SWC Level C Chattering Relay Test

**Insulation Res.**
- Over 20 M Ohm between power supply input terminal and protective ground (FG)

**Vibration**
- 5 to 55Hz 2 G for 2 hours in the X, Y and Z axes

**Shock**
- 10 G for under 12 ms in the X, Y and axes

**User Memory**
- 512KB system RAM memory, 512K and 1MB Option RAM Card for Memory Expansion; 1MB or 2MB Option Flash Card for Memory Backup/Transfer

**# of Screens**
- Up to 999 limited memory

**Real Time Clock**
- Built into panel (PLC clock is still accessible if available)

**Screen Saver**
- Yes, Backlight off

**Serial Communications**
- PLC port: RS-232/RS-422/RS-485 15-pin D-sub (female)
- Download/program port: RS-232/RS-422/RS-485 9-pin D-sub (female)

**External Dimensions**
- 8.748” x 10.894” x 2.289” (222.199 x 276.708 x 58.136 mm)
- See Page 21
- 10.59” x 13.58” x 2.86” (268.99 x 344.93 x 72.64 mm)
- See Page 23
- 13.00” x 16.75” x 4.66” (330.2 x 425.45 x 118.35 mm)
- See Page 25

**Weight**
- 2.9 lbs
- 3.8 lbs
- 8.9 lbs
This page intentionally left blank.
Chapter 4 - Installation

Installing the EZ Series Touch Panel requires the following three major steps:

1. **Mounting**
   - The EZ Series Touch Panel is a front-panel mount unit. Mounting of the unit requires a panel cutout, and drilling six, eight, or ten holes (depending on the model) for the mounting screws. You may also mount the 6-inch units using the optional DIN clips. Some 6-inch units (Slim Bezel models) can only be mounted using DIN clips. The 8-, 10- and 15-inch Slim Bezel Models are Stud Mount ONLY. Please see the Mounting section beginning on page 18 for mounting diagrams and instructions.

   **CAUTION:** DO NOT use any thread locking compounds to secure the studs to Plastic Bezel Models. Many of these compounds will degrade the plastic housing.

2. **Connections and Wiring**
   - Now that your EZ Series Touch Panel is mounted, you are ready to connect your unit to the power source, PLC, and programming computer or printer. The EZ Series Touch Panel’s PLC Port and COM1 Port support RS-232C, RS-422A and RS-485A connections. Note that the EZ Series Touch Panel is a DC powered unit (24 VDC). See the section on Connections and Wiring, beginning on page 29 for further information. See the section on Option Card Installation, beginning on page 32 if you have an option card installed in your EZ Series Touch Panel.

3. **Communications Setup**
   - The EZ Series Touch Panel has some adjustable features and panel tests, such as Contrast, Clock, and Touchpad Test. You will also select whether the COM1 port will be used to connect to a Programming PC or a printer. The unit is shipped with factory default values for some of these features, but they can be adjusted by the user. To change any value, enter the SETUP MODE on powerup and follow the procedures provided in the Communications Setup section beginning on page 41.
Mounting

EZ Series Touch Panel is a panel-mount unit. Most 6-inch units (6-inch Slim models are DIN Clip mounted only) can be mounted using one of the following methods: 1. Studs; or 2. DIN Clips. 8-, 10-, and 15-inch units are stud mounted only. The following diagrams show the outline and cutout dimensions necessary to mount the panel using Method 1. Studs. (See page 27 for diagrams showing Method 2. DIN Clips.)

METHOD 1. Stud Mounting

1) DO NOT use any thread locking compounds to secure the studs. Many of these compounds will degrade the plastic housing.

2) Mount on a VERTICAL SURFACE ONLY in order to ensure proper cooling of the panel.

Allow 1-inch clearance between rear of panel and enclosure

Allow 4-inches for panel X - Y clearance.

EZ Series Touch Panel mounting in a NEMA4 rated enclosure
All the necessary mounting hardware is provided with the unit. Use the 6 studs and 6 nuts with captive washers to secure the unit to the mounting surface. Dimensions are provided in inches and millimeters, mm appear in brackets [ ].

Models:
- EZ-S6M-R
- EZ-S6M-F
- EZ-S6M-FH
- EZ-S6C-K
- EZ-S6C-F
- EZ-S6C-FH
6” White on Blue, 6” Gray Scale, 6” TFT, & 6” STN
Slim Bezel Outline & Cutout Dimensions

Models:
EZ-S6M-RS  EZ-S6C-KS  EZ-T6C-ES  EZ-S6W-RS
EZ-S6M-FS  EZ-S6C-FS  EZ-T6C-FS  EZ-S6W-FS
EZ-S6M-FSH EZ-S6C-FSH EZ-T6C-FSD
EZ-S6M-ES  EZ-S6C-ES  EZ-T6C-FSE
EZ-S6M-FSD EZ-S6C-FSD EZ-T6C-FSH
EZ-S6M-FSE EZ-S6C-FSE EZ-T6C-FSM
EZ-S6M-FSM EZ-S6C-FSM EZ-T6C-FSP
EZ-S6M-FSP EZ-S6C-FSP EZ-T6C-FST
EZ-S6M-FST EZ-S6C-FST EZ-T6C-FSC
EZ-S6M-FSC EZ-S6C-FSC EZ-T6C-FSU
EZ-S6M-FSU EZ-S6C-FSU

All the necessary mounting hardware is provided with the unit. See page 27 for DIN Clip installation instructions. Dimensions are provided in inches and millimeters, mm appear in brackets [ ].
8" TFT, 8" STN, & 8" Color Slim Bezel Outline Dimensions

Models:
EZ-S8C-F  EZ-S8C-FS  EZ-T8C-E
EZ-S8C-FH  EZ-S8C-FSH  EZ-T8C-F
EZ-S8C-FC  EZ-S8C-FSD  EZ-T8C-FD
EZ-S8C-FD  EZ-S8C-FSM  EZ-T8C-FE
EZ-S8C-FE  EZ-S8C-FSP  EZ-T8C-FH
EZ-S8C-FM  EZ-S8C-FST  EZ-T8C-FM
EZ-S8C-FP  EZ-S8C-FSC  EZ-T8C-FP
EZ-S8C-FT  EZ-S8C-FSE  EZ-T8C-FT
EZ-S8C-FU  EZ-S8C-FSU  EZ-T8C-FC
                   EZ-T8C-FU

The 8-inch Slim Bezel Models are Stud Mount only. All the necessary mounting hardware is provided with the unit. Use the 8 studs and 8 nuts with captive washers to secure the unit to the mounting surface. Dimensions are provided in inches and millimeters, mm appear in brackets [ ].
The 8-inch Slim Bezel Models are Stud Mount only. All the necessary mounting hardware is provided with the unit. Use the 8 studs and 8 nuts with captive washers to secure the unit to the mounting surface. Dimensions are provided in inches and millimeters, mm appear in brackets [ ].
The 10-inch Slim Bezel Models are Stud Mount ONLY. All the necessary mounting hardware is provided with the unit. Use the 8 studs and 8 nuts with captive washers to secure the unit to the mounting surface.
The 10-inch Slim Bezel Models are Stud Mount ONLY. All the necessary mounting hardware is provided with the unit. Use the 8 studs and 8 nuts with captive washers to secure the unit to the mounting surface.
The 15-inch Slim Bezel Models are Stud Mount ONLY. All the necessary mounting hardware is provided with the unit. Use the 18 studs and 18 nuts with captive washers to secure the unit to the mounting surface.
The 15-inch Slim Bezel Models are Stud Mount ONLY. All the necessary mounting hardware is provided with the unit. Use the 18 studs and 18 nuts with captive washers to secure the unit to the mounting surface.
METHOD 2. DIN Clips

The 6-inch Slim Bezel models must be mounted using DIN Clips. It is optional for the other 6-inch models. DIN Clips are metal brackets (P/N EZ-BRK-1, package of 2 brackets and 4 screws) that attach to the panel and secure the front panel to a mounting surface with 4 screws. Use the diagram and instructions below to mount the EZ Series Touch Panel using DIN Clips.

1. There are 4 rectangular holes in each side (two at the top and two at the bottom) of the chassis as shown in the following figure. Choose the holes that allow the appropriate space for your mounting panel thickness.

2. On each DIN Clip there are two metal tabs (bent inward) that fit into these holes. Insert the two clip tabs into two holes (top and bottom) and secure the panel by alternately tightening the DIN Clip screws (4) until the back edge of the EZ Series Touch Panel front bezel is flush with the mounting panel.

CAUTION: Tighten DIN Clips to a maximum of 1.5 inch-pounds to provide a proper seal. EZAutomation assumes no responsibility for “liquids” damage to the unit or other equipment within the enclosure because of improper installation.
DIN Clip Slot Location for Slim Bezel Models

Models:
- EZ-S6M-RS  EZ-S6C-KS
- EZ-S6M-FS  EZ-S6C-FS
- EZ-S6M-FSH EZ-S6C-FSH
- EZ-S6M-ES  EZ-S6C-ES
- EZ-S6M-FSD EZ-S6C-FSD
- EZ-S6M-FSE EZ-S6C-FSE
- EZ-S6M-FSM EZ-S6C-FSM
- EZ-S6M-FSP EZ-S6C-FSP
- EZ-S6M-FST EZ-S6C-FST
- EZ-S6M-FSC EZ-S6C-FSC
- EZ-S6M-FSU EZ-S6C-FSU

DIN Clip tab inserted into rectangular hole closest to the front bezel
Connections and Wiring

**Power Terminals**
Connect (+) on the unit to the (+) lead of your power source; (-) on the unit is connected to the (-) lead, and chassis GND (on the unit) is connected to the chassis ground of the cabinet. See page 30 for more information on power terminals.

**Universal Ethernet**
For Universal Ethernet Models (those with a part number ending with the suffix “U”), an RJ45 Connector will appear in place of the 15-pin D-sub PLC Port.

**Status LED**
The Status LED provides an indication of unit status. It will illuminate as RED or GREEN. If the LED does not light, this indicates that there is NO POWER to unit or the power supply failed. Check or replace power supply. If the LED turns RED and stays RED, check power supply to ensure it has sufficient current capability. If the LED flashes RED and turns GREEN that indicates normal operation. For more information, see the Troubleshooting section of this manual.

**PLC Cable**
See page 33 for more information.

**Programming PC Cable**
P/N EZ-PGMCBL
See page 31 for more information.

**Bottom View**
- **PLC Port**
  - RS-232C, RS-422A or RS-485A Female 15-pin D-Sub Connector. Most PLCs connect to 15-pin D-Sub with cable specific to the PLC type (see table, page 30, for cable part numbers.) Special interface boards with PLC connector are available for PLCs requiring a special connector. For special Option Card Connector information, see pages 32 through 39.

**Power Connector**

**Back View**
- **PLC Port**
- **COM Port**

**Wiring Diagram**

**COM 1 Port**
RS-232C, RS-422A, or RS-485A Female 9-pin D-Sub Connector for connection to programming computer. When not in use for programming, it may be used for connection to a serial printer. See page 31.
**Power Terminal**

It is recommended you use a regulated power source isolated from relays, valves, etc.

**Power Connector** (P4, Phoenix 3-pin Header, 0.2 cntr)

<table>
<thead>
<tr>
<th>Pin #</th>
<th>Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>+V</td>
</tr>
<tr>
<td>2</td>
<td>-V</td>
</tr>
<tr>
<td>3</td>
<td>Chassis Ground</td>
</tr>
<tr>
<td></td>
<td>24VDC (20–30 VDC)</td>
</tr>
</tbody>
</table>

The table below provides the pinout for the panel PLC connector. Cable wiring diagrams for each PLC are provided in Appendix A. Special interface boards with PLC connector are available for PLCs requiring a special connector. For EZ Series Touch Panels with A-B DH+ option cards installed, see tables on pages 5 through 8. See page 34 for EZ Ethernet Option Card port.

**PLC Connector Pinout**

**NOTE:** For PLC Cable part numbers, please refer to page 12 of this manual.
COM1 Port

The COM1 Port is used to connect a programming computer or a printer to the EZ Series Touch Panel. *The panel only needs to be connected to a PC when you are programming the unit.* You will use the EZ Series Touch Panel Editor Programming Software to design the touch panel screens. A wiring diagram for the EZ Series Touch Panel RS-232C Programming Cable is shown below. The table shows EZ Series Touch Panel’s pinout for RS-232C and RS-422A connections.

RS-232C EZPanel Programming Cable (P/N EZP-PGMCBL)

```
+----------------+  +----------------+
| PC COM Port    |  | RS-232          |
| TXD (3)        |  | RXD (3)         |
| RXD (2)        |  | TXD (2)         |
| GND (5)        |  | GND (5)         |
| DTR (4)        |  | DTR (4)         |
| CTS (6)        |  | CTS (6)         |
| D-sub 9-pin    |  | D-sub 9-pin     |
| Female         |  | Male            |
```

### COM1 Connector

<table>
<thead>
<tr>
<th>Pin #</th>
<th>RS-232C Connection</th>
<th>RS-422A Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>DO NOT USE</strong> TXD– (RS-422/485)</td>
<td>TXD– (RS-422/485)</td>
</tr>
<tr>
<td>2</td>
<td>TXD (RS-232C)</td>
<td><strong>DO NOT USE</strong> TXD (RS-232C)</td>
</tr>
<tr>
<td>3</td>
<td>RXD (RS-232C)</td>
<td><strong>DO NOT USE</strong> RXD (RS-232C)</td>
</tr>
<tr>
<td>4</td>
<td><strong>DO NOT USE</strong> RXD– (RS-422/485)</td>
<td>RXD– (RS-422/485)</td>
</tr>
<tr>
<td>5</td>
<td>Logic GND</td>
<td>Logic GND</td>
</tr>
<tr>
<td>6</td>
<td><strong>DO NOT USE</strong> TXD+ (RS-422/485)</td>
<td>TXD+ (RS-422/485)</td>
</tr>
<tr>
<td>7</td>
<td><strong>DO NOT USE</strong> CTS (NOT USED)</td>
<td><strong>DO NOT USE</strong> CTS (NOT USED)</td>
</tr>
<tr>
<td>8</td>
<td><strong>DO NOT USE</strong> RTS (NOT USED)</td>
<td><strong>DO NOT USE</strong> RTS (NOT USED)</td>
</tr>
<tr>
<td>9</td>
<td><strong>DO NOT USE</strong> RXD+ (RS-422/485)</td>
<td>RXD+ (RS-422/485)</td>
</tr>
</tbody>
</table>
Option Card Installation

The EZ Series Touch Panel Models EZ-S6M-FH, EZ-S6M-FSH, EZ-S6C-FH, EZ-S6C-FSH, EZ-S8C-FH, EZ-S8C-FSH, EZ-T10C-FH, EZ-T10C-FSH, and EZ-T15C-FSH have the Allen-Bradley Data Highway Plus/Remote I/O Option Card installed. (Allen-Bradley option cards are designated by an “H” at the end of the part number.

Also, EZ Ethernet Models (P/N EZ-ETHERNET) and EZ Series Touch Panel Models EZ-S6M-FSC, EZ-S6M-FSD, EZ-S6M-FSM, EZ-S6M-FSP, EZP-T10C-FC, EZ-T15C-FC, EZ-T10C-FSD, EZ-T10C-FSE, EZ-T10C-FSM, EZ-T10C-FSP, EZ-T15C-FSD, EZ-T15C-FSE, EZ-T15C-FSM, and EZ-T15C-FSP, have an option card installed. Those with a “D” at the end of the part number have a generic DeviceNet I/O card installed, with an “E” have a generic Ethernet I/O card installed, those with a “M” have a Modicon Modbus Plus card installed, those with a “P” have a generic Profinet-DP option card installed and those with a “C” have a CC Link option card installed. A connector, unique to each option, is attached to these option boards and is accessible from the bottom of the unit.

The option card has been installed to the backplane connector shown below. (The connector on the bottom right side of the card installs into the backplane connector.) The card is secured with two screws.

A section of the plastic back cover has been removed to allow access to option card connectors that extend over the edge of the board. See the following pages for more information on each board.
Allen-Bradley Data Highway Plus Option Card

The Allen-Bradley Data Highway Plus PLC connector that extends over the edge of the board is shown below. Next to the connector are two LEDs that illuminate to indicate status.

EZ Series Touch Panel
Remote I/O
Option Card

A-B PLC Data Highway Plus Connector

1 Blue ______________________________ 1
Shield ______________________________ Shield
2 Clear _____________________________ 2
EZ Ethernet/EZEtherPlus Option Card

The EZ Ethernet/EZEtherPlus Option Card (P/N EZ-ETHERNET) comes with two different type screws. Remove the screws from the packaging and set aside.

a. Connect EZ Series Touch Panel to a computer and, following instructions in EZ Series Touch Panel Software Help Topics or User Manual, upload the user program from the Panel to the computer. Save the user program to disk.

b. Disconnect panel power source.

c. Open back cover (shown open in figure to the right) to install the card.

d. The connector on the bottom right side of the card installs into the backplane connector.

e. Secure the card into place by installing the two screws.

f. The bottom of the plastic back cover has a section that must be removed to allow access to the EZ Ethernet connector that extends over the edge of the board. To remove this plastic section, look for the perforation and snap it out along the perforation with a pair of pliers.

g. Close rear cover and press so that it snaps into place.

h. Reconnect power source, connect to PC, run EZ Series Touch Panel Editor Programming Software and follow instructions to download the user program previously saved to disk.

i. Consult the EZ Ethernet/EZEtherPlus Option Card Manual (P/N EZ-ETHERNET-M) for programming instructions.
For more information about the card, connector, LEDs and Switches, see the EZ Ethernet/EZEtherPlus Option Card Manual (P/N EZ-ETHERNET-M).

For information about LEDs, DIP Switches, Connections and programming, refer to the EZ Ethernet Option Card Manual, P/N EZ-ETHERNET-M.
Generic DeviceNet I/O Option Card

The EZ Series Touch Panel Models EZ-S6M-FSD, EZ-S6C-FSD, EZ-T6C-FSD, EZ-S8C-FD, EZ-S8C-FSD, EZ-T8C-FD, EZ-T10C-FD, EZ-T10C-FSD, and EZ-T15C-FSD have the DeviceNet I/O Option Card installed. A special connector is attached to these option boards and is accessible from the bottom of the unit.

The bottom of the plastic back cover has a section that has been removed to allow access to the DeviceNet connector that extends over the edge of the board. Next to the connector are DIP Switches and then four LEDs that illuminate to indicate status. The Watchdog LED is only visible when you open the back cover.

<table>
<thead>
<tr>
<th>Connector Pin</th>
<th>Signal</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>V-</td>
<td>Negative supply voltage</td>
</tr>
<tr>
<td>2</td>
<td>CAN_L</td>
<td>CAN_L bus line</td>
</tr>
<tr>
<td>3</td>
<td>SHIELD</td>
<td>Cable shield</td>
</tr>
<tr>
<td>4</td>
<td>CAN_H</td>
<td>CAN_H bus line</td>
</tr>
<tr>
<td>5</td>
<td>V+</td>
<td>Positive supply voltage</td>
</tr>
</tbody>
</table>
Generic Ethernet/IP Option Card

EZ Series Touch Panel Models EZ-S6M-FSE, EZ-S6C-FSE, EZ-T6C-FSE, EZ-S8C-FE, EZ-S8C-FSE, EZ-T8C-FE, EZ-T10C-FE, EZ-T10C-FSE, and EZ-T15C-FSE have the Ethernet/IP Option Card installed. A special connector is attached to these option boards and is accessible from the bottom of the unit.

The bottom of the plastic back cover has a section that has been removed to allow access to the Ethernet/IP connector that extends over the edge of the board. Next to the connector are DIP Switches used for configuration, and four LEDs that illuminate to indicate status. The Watchdog LED is only visible when you open the back cover. The module uses twisted-pair cables, and no external termination is required.
Modicon Modbus Plus Option Card

The EZ Series Touch Panel Models EZ-S6M-FSM, EZ-S6C-FSM, EZ-T6C-FSM, EZ-S8C-FM, EZ-S8C-FSM, EZ-T8C-FM, EZ-T10C-FM, EZ-T10C-FSM, and EZ-T15C-FSM have the Modbus Plus Option Card installed. A special connector is attached to these option boards and is accessible from the bottom of the unit.

The bottom of the plastic back cover has a section that has been removed to allow access to the Modbus connector (9-pin Female D-SUB) that extends over the edge of the board. Two types of connectors are available from Modicon for connecting devices to the network. Each inline drop requires a line connector, Modicon part number AS-MBKT-085. This part number contains one connector. The drops at the two ends of the cable, each require a terminating connector, Modicon part number AS-MBKT-185. This contains two connectors.

The Modbus Plus node address can be set using the first six positions of the DIP switches located at the top of the option board as shown in the diagram below. When the board is seated in the panel, setting the DIP Switch in the UP position is the ON position. There are three Status LEDs on the Modbus Plus option card: MBP, TXD, and RXD. The TXD and RXD LEDs indicate the board is transmitting or receiving data. The MPB LED (leftmost LED) indicates Modbus Plus status.

MODBUS PLUS CONNECTOR PINOUTS

<table>
<thead>
<tr>
<th>Pin Position</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(GND)</td>
</tr>
<tr>
<td>2</td>
<td>(Data +)</td>
</tr>
<tr>
<td>3</td>
<td>(Data -)</td>
</tr>
</tbody>
</table>

Modbus Plus 9-Pin Dsub (male) EZ Series TouchPanel 9-Pin Dsub (male)
Generic Profibus-DP Option Card

The EZ Series Touch Panel Models EZ-S6M-FSP, EZ-S6C-FSP, EZ-T6C-FSP, EZ-S8C-FP, EZ-S8C-FSP, EZ-T8C-FP, EZ-T10C-FP, EZ-T10C-FSP, and EZ-T15C-FSP have the Profibus-DP Option Card installed. A special connector is attached to these option boards and is accessible from the bottom of the unit.

The bottom of the plastic back cover has a section that has been removed to allow access to the Profibus-DP connector that extends over the edge of the board. Next to the connector are a Termination Switch, Rotary Address Switches, and four LEDs that illuminate to indicate status.

### Fieldbus Connector

- **9-pin female D-SUB connector**

<table>
<thead>
<tr>
<th>D-SUB</th>
<th>Screw Terminal</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing</td>
<td>Shield</td>
<td>Connected to PE</td>
</tr>
<tr>
<td>1</td>
<td>Not connected</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>Not connected</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>B-Line</td>
<td>Positive RxD/TxD according to RS-485 specification</td>
</tr>
<tr>
<td>4</td>
<td>RTS</td>
<td>Request to Send*</td>
</tr>
<tr>
<td>5</td>
<td>GND BUS</td>
<td>Isolated GND from RS-485 side*</td>
</tr>
<tr>
<td>6</td>
<td>+5 V BUS</td>
<td>Isolated +5 V from RS-485 side</td>
</tr>
<tr>
<td>7</td>
<td>Not connected</td>
<td>-</td>
</tr>
<tr>
<td>8</td>
<td>A-Line</td>
<td>Negative RxD/TxD according to RS-485 specification</td>
</tr>
<tr>
<td>9</td>
<td>Not connected</td>
<td>-</td>
</tr>
</tbody>
</table>

* +5V BUS and GND BUS are used for bus termination. Some devices, like optical transceivers (RS-485 to fiber optics) might require external power supply from these points. RTS is used in some equipment to determine the direction of transmission. In normal applications only A-Line, B-Line, and Shield are used.
Mitsubishi CC Link Option Card

The EZ Series Touch Panel Models EZ-S6M-FSC, EZ-S6C-FSC, EZ-T6C-FSC, EZ-S8C-FSC, EZ-T8C-FSC, EZ-T10C-FSC, and EZ-T15C-FSC have the Mitsubishi CC Link Option Card installed. A special connector is attached to these option boards and is accessible from the bottom of the unit.

The bottom of the plastic back cover has a section that has been removed to allow access to the Profibus-DP connector that extends over the edge of the board. Next to the connector are a Termination Switch, Rotary Address Switches, and four LEDs that illuminate to indicate status.

STATION NUMBER SWITCHES

The Station Number is set by the two Rotary Switches (shown above in the upper left corner of the board). Use a small flat blade screwdriver to set the station number (1 to 64). The rotary switches have settings from 0 to 9. The top most switch sets the tens and the one immediately below it sets the units. For example, with a Station Number of 47, set the top most switch to 4 and the switch below to 7.
Communications Setup

After the EZ Series Touch Panel is powered up, you may enter the Setup Mode by simultaneously pressing the extreme upper left and lower left touch cells on the panel screen. The following screen is displayed. Information is displayed in the upper left hand corner about the current revision of the Firmware, Hardware, and Boot program. Also shown is RAM memory — Used, Free and Total, and Flash memory. Below that is displayed the time and date, whether the COM1 port is connected to a computer or a printer, and the current Contrast setting. There are six buttons at the bottom of the screen. They are labeled Clock, COM1, Contrast, Touchpad Test, Display Test and Exit.

When you press the Clock button, the screen shown above will appear.
Enter the current time and date. Press the keypad button of the number you want to enter. It will show in the display window. If correct, press Hr, Min, Sec, Hr, Day, Mon, Yr corresponding to the time or date position you are setting. If not correct, press CL to clear the window. For the month, enter the number of the month and the three letter abbreviation for the month will be displayed (e.g., 7 = July = JUL).

### ASSIGN COM1

![ASSIGN COM1 Diagram]

#### Current setting: Computer

#### NOTE

COM1 is assigned to the computer while in setup.

- Computer
- Printer

### COM1

The COM1 button is used to assign the COM1 port for use with an external device. When you press the COM 1 button, the screen shown above will appear. Press the **Computer** button if the port will be connected to the programming computer. Press the **Printer** button if the port will be connected to a printer.

---

**Please Note:** If you are in Setup Mode, it doesn’t matter what the COM1 setting is (Printer or Computer), you CAN STILL TRANSFER A PROGRAM from EZ Series Touch Panel Editor Programming Software to the panel. The COM1 setting to Printer is OVERRIDDEN while in Setup Mode. When you exit Setup Mode, however, the Printer assignment to COM1 becomes effective—you WILL NOT have a connection established between the computer and the panel and WILL NOT be able to transfer a program. You must return to Setup Mode and REMAIN in Setup Mode while transferring, OR change the COM1 assignment on the ASSIGN COM1 screen, shown above, to Computer, exit Setup Mode, and THEN you can transfer the program to the panel.

To enter Setup Mode from the user program, press on the extreme upper and extreme lower touch cell on the EZ Series Touch Panel touchscreen. On the first Setup Mode Screen, press the COM1 button. From the ASSIGN COM1 screen (shown above), press Computer. You are automatically taken back to the first setup screen. Press the Exit button to return to user program.
Contrast

When you press the **Contrast** button, the screen shown above will appear (except that the monochrome units will not have color). From this screen you can adjust the panel screen contrast (except on the 10” and 15” TFT Color units). Press **Exit** to return to the previous screen. In the **Current Contrast** window, the current contrast setting is displayed. The 6” Monochrome units will have a contrast range of 87 to 119. The 10” and 15” TFT Color units will not have a contrast adjustment feature. The 8” Color unit will have a contrast range of 21 to 52, and the 6” Color unit’s contrast range is 0 to 32. Press the up and down arrow buttons to adjust the screen display contrast. Press **Exit** to return to the setup screen.

Touchpad Test

Shown above is the **Test** screen for the 8” Color screen touch pad. There are 192 touch cells on some of the 6” models (see table, above) and on the 8”, 10”, and 15” panel screens (16 x 12), and 48 (8 x 6) on the other 6” models. Each
touchpad is numbered for reference. Press on each or any square to test that it is active. It will be highlighted after pressing to show that it has been tested. Press the square again to deselect it. Each square should beep when pressed. Press Exit in the lower right hand corner to quit.

**Display Test**

The Display Test button is primarily used for production testing at the factory. Bands of color scroll horizontally and vertically across the screen during this test. It is used to check the pixel quality of the display before shipping the unit.

**Exit**
Press the Exit button to display the Powerup screen you have selected in your project (selected under Project Attributes.)

**Reboot**
To reboot the EZ Series Touch Panel from any programmed screen, simultaneously press the extreme upper left and extreme lower left touchpad area on the panel screen.
Chapter 5 - Maintenance & Troubleshooting

Shutting Off Power to EZ Series Touch Panel

Removing power from the EZ Series Touch does not normally cause a loss of the user program that is stored in the panel unless the battery voltage is low or the battery has been removed. A low battery can be programmed to a hard-coded system alarm that will display a message on all user-programmed screens.* It is recommended that you back up your user program on multiple PC disks and/or install a flash option card, which will provide a nonvolatile storage of the user program.

The steps to install a Flash option card and to load the user program onto a Flash option card are as follows:

1. Run the EZ Series Touch Panel Programming Software and connect the PC serial port to COM1 on the panel. Power up the panel.

2. If the user program is not stored on the connected PC, then “Transfer the program from the panel.” See the instructions below, “To save program to computer disk, ...”

3. Then save the user program to disk by performing the following steps:
   a. Power down panel.
   b. Install Flash option card (see page 50).
   c. Power up panel.
   d. Transfer saved program to the panel.

4. From the Start Screen (Project Information, Step 1), under SELECT ACTION, click on Edit Program ON-LINE. Click Panel > Flash > RAM to Flash.

5. The user program will now be stored to both the Flash and RAM memory.

6. Each time the panel is powered with the Flash card installed, the user program will load from the nonvolatile Flash option card to the battery-backed user RAM. **This is a very useful feature for performing field upgrades or changes to user programs. OEMs can send updated Flash cards to field locations for operators to upgrade their systems without using a PC!**

   * continued, next page

*A low battery sets a System Attribute that may be programmed to display an alarm. You must program the attribute and alarm for this to happen. See EZ Series Touch Panel Programming Help or Manual, Project Attributes > Panel to PLC > Low Battery.
To save a program to computer disk, perform the following steps:

1. Have programming computer connected to the panel and EZ Series Touch Panel Editor Programming Software running.

2. From the Start Screen (Project Information, Step 1) under SELECT ACTION, click on Read Program from Panel and Edit OFF-LINE. The screen shown below will appear.

3. Save the project to the computer hard drive or a floppy disk by clicking on the Browse Button and navigating to the directory and folder where you want to save the project. Click on the Start button.

4. Shut off power and perform maintenance task.

5. Reapply power to panel and with programming software running, click on Edit Program OFF-LINE and select the saved project file.

6. Click on File > Transfer to Panel. The Write Program to Panel screen, shown to the right, will appear. Click on the Start button to transfer the program to the EZ Series Touch Panel.
Lithium Battery Replacement

BEFORE REMOVING BATTERY, back up the user program and save in accordance with the instructions on page 46.

Typical battery life is 5 years.

a. Connect EZ Series Touch Panel to a computer and, following instructions on the page 46 to save the user program to disk.

b. Disconnect power source.

c. Open back cover (shown open in figure below) to access the battery.

d. The battery is located in the upper-left hand corner as shown in the figure below. Remove old battery and replace with a new 1/2 AA, 3.6 V Lithium Battery (Part Number EZ-BAT).

e. Close rear cover and ensure that the door latches.

f. Reconnect power source, connect to PC, run EZ Series Touch Panel Programming Software, and follow instructions to transfer the user program that was previously saved to disk.
Gasket Replacement
The standard gasket may need to be replaced if it becomes damaged or worn. To replace the gasket (P/N EZ-SLIM6-GSK, EZ-SLIMF8-GSK, or EZ-SLIMF10-GSK) perform the following steps:

1. Ensure that all pieces of old gasket have been removed from the gasket slot.
2. Remove the new replacement gasket from its plastic bag and position over the gasket slot.
3. Press the gasket into the slot. Friction between the slot and gasket will hold it into place during installation.

6-, 8-, 10-, and 15-inch Slim Bezel Gasket Replacement (P/N's EZ-6SLIMF-GSK, EZ-8SLIMF-GSK, EZ-10SLIMF-GSK, or EZ-15SLIMF-GSK)
Please note that this gasket is NOT REUSABLE. If you remove the panel from its mounting surface for any reason, discard the old gasket and REPLACE with a new gasket to remount the panel.

Panel Status Indicator Light
The Status LED provides an indication of unit status. It will illuminate as RED or GREEN. If the LED does not light, this indicates that there is NO POWER to unit or the power supply failed. Check or replace 24 VDC power supply. If ok, send unit back to factory for repair. If the LED turns RED and stays RED, your power supply may be too small (see page 55.) If the LED flashes RED and turns GREEN that indicates normal operation. For more information, see the Troubleshooting Chapter of this manual.
DO NOT REMOVE THE RAM OR FLASH CARD WHILE POWER IS APPLIED TO THE PANEL. TO DO SO WILL IRREPARABLY DAMAGE THE CARD. BACK UP YOUR USER PROGRAM AND REMOVE POWER TO THE UNIT BEFORE REMOVING A MEMORY CARD. SEE PROGRAM BACKUP INSTRUCTIONS, PAGE 46.

CAUTION

Cards installed

RAM Upgrade
User RAM memory of all standard units, except the 6” Monochrome Model P/N EZ-S6M-R, EZ-S6M-RS, and EZ-S6W-RS can be upgraded. The 6-, 8-, and 10-inch models are 512Kb standard. If your program requires more than the standard 512Kb memory, you can upgrade to 1MB of memory from the standard 512Kb be inserting the optional 512Kb RAM Card (P/N EZ-RAM-1), or you can upgrade to 1.5MB by inserting the optional 1MB RAM Card (P/N EZ-RAM-2). The 15-inch model is 1MB standard. You can upgrade to 1.5MB by inserting the optional 512Kb RAM Card, or upgrade to 2MB with the optional 1MB RAM Card. To install card, perform the following steps:

1. Back up your user program (see page 46) and REMOVE POWER TO THE UNIT.
2. Open back cover to access RAM card slot (upper right hand corner, bottom slot).
3. Simply insert the new card, being careful to seat the card properly into the backplane connector. (Do not force the card, it should connect easily if properly aligned.)
4. Close back cover and reapply power to the panel.
5. Upload saved user program.

Please Note: Your FLASH Program Backup must match or be larger than your RAM memory to ensure all of your program is saved. See next page (50).
1) DO NOT REMOVE THE RAM OR FLASH CARD WHILE POWER IS APPLIED TO THE PANEL. TO DO SO WILL IRREPARABLY DAMAGE THE CARD. BACK UP YOUR USER PROGRAM AND REMOVE POWER TO THE UNIT BEFORE REMOVING A MEMORY CARD. SEE PROGRAM BACKUP INSTRUCTIONS, PAGE 46.

2) USE ONLY EZAUTOMATION FLASH CARDS IN THE EZ SERIES TOUCH PANEL. USE OF ANOTHER CARD WILL DAMAGE THE UNIT AND WILL VOID WARRANTY.

FLASH Program Backup
All the EZ Series Touch Panel models, except the 6” Monochrome Model P/N EZ-S6M-R EZ-S6M-RS, and EZ-S6W-RS can have Flash Program Backup Cards. This feature allows you to store your user program into nonvolatile memory. The FLASH Card easily installs in the slot provided in the back of the unit. Depending on the size of your program, choose from three available memory sizes — 512Kb (P/N EZ-FLASH-1), 1MB (P/N EZ-FLASH-2), and 2MB (P/N EZ-FLASH-3). Note: the user RAM size must match your user Flash size: 512Kb RAM = 512Kb Flash, 1MB RAM = 1MB Flash, 1.5MB RAM = 2MB Flash (must be larger, use 2MB), and 2MB RAM = 2MB Flash. With the panel connected to a programming PC and the EZ Series Touch Panel Editor Programming Software running, click on Panel > Flash > RAM to FLASH from the main menu. Once the program is backed up onto the card, you can use it to load the program into different units — no programming computer is necessary. To install either card:

1. Back up your user program and remove power to the unit.

2. Open back cover to access FLASH card slot (upper right hand corner, upper slot).

3. Simply insert the new card, being careful to seat the card properly into the backplane connector. (Do not force the card, it should connect easily if properly aligned.)

4. Close back cover and reapply power to the panel.

5. Upload saved user program.

6. In EZ Series Touch Panel Editor Programming Software click on Panel > Flash > RAM to FLASH.

Fuse Reset
The internal fuse does not require replacement. It is reset by removing power for 5 minutes and then reapplying power to the unit.
Fluorescent Backlight Bulb Replacement
Generally, backlight bulb life far exceeds the manufacturer’s expected life. (The manufacturer’s expected half-life rates are provided in the table below.)

*Using the Screen Saver feature should significantly extend the life of the fluorescent backlight bulb!* (Refer to the EZ Series Touch Panel Editor Programming Software Help or Manual. To program the Screen Saver feature, go to EZ Series Touch Panel Editor Programming Software’s main menu item Objects > System Objects > Screen Saver.)

<table>
<thead>
<tr>
<th>Enhanced EZ Series Touch Panel Model</th>
<th>Manufacturer’s Expected Bulb Half-Life</th>
</tr>
</thead>
<tbody>
<tr>
<td>6” White or Blue</td>
<td>25,000 Hours</td>
</tr>
<tr>
<td>6” Monochrome</td>
<td>25,000 Hours</td>
</tr>
<tr>
<td>6” Color</td>
<td>25,000 Hours</td>
</tr>
<tr>
<td>6” TFT</td>
<td>50,000 Hours</td>
</tr>
<tr>
<td>8” Color</td>
<td>25,000 Hours</td>
</tr>
<tr>
<td>8” TFT</td>
<td>40,000 Hours</td>
</tr>
<tr>
<td>10” Color</td>
<td>40,000 Hours</td>
</tr>
<tr>
<td>15” Color</td>
<td>40,000 Hours</td>
</tr>
</tbody>
</table>

Precautions
To ensure the longevity and effectiveness of the EZ Series Touch Panel please take note of the following precautions:

- Do not press sharp objects against the screen.
- Do not strike the panel with hard objects.
- Do not press the screen with excessive force.
- Once the panel is mounted and has power applied, do not place any objects over the ventilation slots. This will result in heat buildup and may damage the unit.

Touchscreen/Chemical Compatibility
The 6-, 8-, and 10-inch plastic (standard) bezel models’ touchscreen has a polyester surface. The following list is provided to make you aware of the general compatibility between chemicals that may be present in your work environment and the polyester surface of the touchscreen. Use the chart to determine those chemicals that are safe to use around your EZ Series Touch Panel and those that may harm the touchscreen. The list rates these chemicals as E—Excellent, G—Good, F—Fair, and N—Not Recommended. Because the ratings are for ideal conditions at 57°C, consider all factors when evaluating your application.

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Rating</th>
<th>Chemical</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>G</td>
<td>Aniline</td>
<td>G</td>
</tr>
<tr>
<td>Auto fuel</td>
<td>E</td>
<td>Auto lubricants</td>
<td>E</td>
</tr>
<tr>
<td>Auto Hydraulics</td>
<td>E</td>
<td>Bromine (wet)</td>
<td>N</td>
</tr>
<tr>
<td>Butyl Cellosolve</td>
<td>E</td>
<td>Butyl Ether</td>
<td>G</td>
</tr>
<tr>
<td>Chloroform</td>
<td>G</td>
<td>Clorox</td>
<td>E</td>
</tr>
<tr>
<td>Coffee</td>
<td>E</td>
<td>Cupric Sulfate</td>
<td>E</td>
</tr>
<tr>
<td>Cyclohexanone</td>
<td>N</td>
<td>Cyclohexanol</td>
<td>E</td>
</tr>
<tr>
<td>Downy</td>
<td>E</td>
<td>Diethyl Ether</td>
<td>G</td>
</tr>
<tr>
<td>Dioctyl Phthalate</td>
<td>G</td>
<td>Ethyl Acetate</td>
<td>E</td>
</tr>
<tr>
<td>Ethanol</td>
<td>E</td>
<td>Ethylene Chloride</td>
<td>G</td>
</tr>
<tr>
<td>Fantastic</td>
<td>E</td>
<td>Formula 409</td>
<td>E</td>
</tr>
<tr>
<td>Grape Juice</td>
<td>E</td>
<td>Heptane</td>
<td>E</td>
</tr>
<tr>
<td>Hexane</td>
<td>E</td>
<td>Hydrogen Peroxide</td>
<td>N</td>
</tr>
<tr>
<td>Isopropyl Alcohol</td>
<td>E</td>
<td>Ketchup</td>
<td>E</td>
</tr>
<tr>
<td>Lemon Juice</td>
<td>E</td>
<td>MEK</td>
<td>F</td>
</tr>
<tr>
<td>Methylene Chloride</td>
<td>N</td>
<td>Mineral Acids (dilute)</td>
<td>E</td>
</tr>
<tr>
<td>Mineral Acids (strong)</td>
<td>G</td>
<td>Mr. Clean</td>
<td>E</td>
</tr>
<tr>
<td>Mustard</td>
<td>G</td>
<td>Naphtha</td>
<td>G</td>
</tr>
<tr>
<td>Phenol</td>
<td>N</td>
<td>Sodium Hydroxide (dilute)</td>
<td>G</td>
</tr>
<tr>
<td>Sodium Hydroxide (strong)</td>
<td>F</td>
<td>Sodium Hypochlorite</td>
<td>E</td>
</tr>
<tr>
<td>Spray ‘N Wash</td>
<td>E</td>
<td>Tea</td>
<td>E</td>
</tr>
<tr>
<td>Toluene</td>
<td>E</td>
<td>Tomato Juice</td>
<td>E</td>
</tr>
<tr>
<td>Top Job</td>
<td>E</td>
<td>Trichloroacetic acid</td>
<td>F</td>
</tr>
<tr>
<td>Triethanolamine</td>
<td>G</td>
<td>Vinegar</td>
<td>E</td>
</tr>
<tr>
<td>Wisk</td>
<td>F</td>
<td>Xylene</td>
<td>E</td>
</tr>
<tr>
<td>Zinc Chloride</td>
<td>E</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The 6-, 8-, 10-, and 15-inch slim bezel models’ touchscreen has a polycarbonate surface. The following list is provided to make you aware of the general compatibility between chemicals that may be present in your work environment and the polycarbonate surface of the touchscreen. Use the chart to determine those chemicals that are safe to use around your EZ Series Touch Panel and those that may harm the touchscreen. The list rates these chemicals as E—Excellent, G—Good, F—Fair, and N—Not Recommended. Because the ratings are for ideal conditions at 57°C, consider all factors when evaluating your application.
<table>
<thead>
<tr>
<th>Chemical</th>
<th>Rating</th>
<th>Chemical</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetaldehyde</td>
<td>N</td>
<td>Acetamide</td>
<td>N</td>
</tr>
<tr>
<td>Acetic Acid @ 5%</td>
<td>G</td>
<td>Acetic Acid @ 50%</td>
<td>G</td>
</tr>
<tr>
<td>Acetone</td>
<td>N</td>
<td>Acetonitrile</td>
<td>N</td>
</tr>
<tr>
<td>Acrylonitrile</td>
<td>N</td>
<td>Adipic Acid</td>
<td>E</td>
</tr>
<tr>
<td>Alanine</td>
<td>N</td>
<td>Allyl Alcohol</td>
<td>F</td>
</tr>
<tr>
<td>Alum. Hydroxide</td>
<td>N</td>
<td>Aluminum Salts</td>
<td>G</td>
</tr>
<tr>
<td>Amino Acids</td>
<td>E</td>
<td>Ammonia</td>
<td>N</td>
</tr>
<tr>
<td>Ammonium Acetate</td>
<td>E</td>
<td>Ammonium Glucolate</td>
<td>F</td>
</tr>
<tr>
<td>Ammonium Hydroxide @ 5%</td>
<td>N</td>
<td>Ammonium Hydroxide @30%</td>
<td>N</td>
</tr>
<tr>
<td>Ammonium Oxalate</td>
<td>E</td>
<td>Ammonium Salts</td>
<td>G</td>
</tr>
<tr>
<td>n-Amyl Acetate</td>
<td>N</td>
<td>Amyl Chloride</td>
<td>N</td>
</tr>
<tr>
<td>Aniline</td>
<td>N</td>
<td>Benzaldehyde</td>
<td>N</td>
</tr>
<tr>
<td>Benzene</td>
<td>N</td>
<td>Benzoic Acid</td>
<td>G</td>
</tr>
<tr>
<td>Benzyl Acetate</td>
<td>G</td>
<td>Benzyl Alcohol</td>
<td>G</td>
</tr>
<tr>
<td>Bromine</td>
<td>F</td>
<td>Bromobenzene</td>
<td>N</td>
</tr>
<tr>
<td>Bromoform</td>
<td>N</td>
<td>Butadiene</td>
<td>N</td>
</tr>
<tr>
<td>n-Butyl Acetate</td>
<td>N</td>
<td>n-Butyl Alcohol</td>
<td>F</td>
</tr>
<tr>
<td>sec-Butyl Alcohol</td>
<td>F</td>
<td>tert-Butyl Alcohol</td>
<td>F</td>
</tr>
<tr>
<td>Butyric Acid</td>
<td>N</td>
<td>Calcium Hydroxide</td>
<td>N</td>
</tr>
<tr>
<td>Calcium Hypochlorite</td>
<td>N</td>
<td>Formaldehyde @ 40%</td>
<td>G</td>
</tr>
<tr>
<td>Formic Acid @ 3%</td>
<td>G</td>
<td>Formic Acid @ 50%</td>
<td>G</td>
</tr>
<tr>
<td>Formic Acid @ 99%</td>
<td>F</td>
<td>Fuel Oil</td>
<td>G</td>
</tr>
<tr>
<td>Gasoline</td>
<td>F</td>
<td>Glacial Acetic Acid</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>E</td>
<td>n-Heptane</td>
<td>G</td>
</tr>
<tr>
<td>Hexane</td>
<td>N</td>
<td>Hydrochloric Acid @ 5%</td>
<td>E</td>
</tr>
<tr>
<td>Hydrochloric Acid @ 20%</td>
<td>F</td>
<td>Hydrochloric Acid @ 35%</td>
<td>N</td>
</tr>
<tr>
<td>Hydrofluoric Acid @ 5%</td>
<td>F</td>
<td>Hydrofluoric Acid @ 48%</td>
<td>N</td>
</tr>
<tr>
<td>Hydrogen Peroxide @ 5%</td>
<td>E</td>
<td>Hydrogen Peroxide @ 30%</td>
<td>E</td>
</tr>
<tr>
<td>Hydrogen Peroxide @ 90%</td>
<td>E</td>
<td>Isobutyl Alcohol</td>
<td>G</td>
</tr>
<tr>
<td>Isopropyl Acetate</td>
<td>N</td>
<td>Isopropyl Alcohol</td>
<td>E</td>
</tr>
<tr>
<td>Isopropyl Benzene</td>
<td>N</td>
<td>Kerosene</td>
<td>E</td>
</tr>
<tr>
<td>Lactic Acid @ 3%</td>
<td>G</td>
<td>Lactic Acid @ 85%</td>
<td>G</td>
</tr>
<tr>
<td>Methoxyethyl Oleate</td>
<td>N</td>
<td>Methyl Alcohol</td>
<td>F</td>
</tr>
<tr>
<td>Methyl Ethyl Ketone</td>
<td>N</td>
<td>Methyl Isobutyl Ketone</td>
<td>N</td>
</tr>
<tr>
<td>Methyl Propyl Ketone</td>
<td>N</td>
<td>Methylene Chloride</td>
<td>N</td>
</tr>
<tr>
<td>Mineral Oil</td>
<td>G</td>
<td>Nitric Acid @ 10%</td>
<td>G</td>
</tr>
<tr>
<td>Nitric Acid @ 50%</td>
<td>F</td>
<td>Nitric Acid @ 70%</td>
<td>N</td>
</tr>
<tr>
<td>Nitrobenzene</td>
<td>N</td>
<td>n-Octane</td>
<td>F</td>
</tr>
<tr>
<td>Orange Oil</td>
<td>F</td>
<td>Ozone</td>
<td>G</td>
</tr>
<tr>
<td>Carbazole</td>
<td>N</td>
<td>Carbon Disulfide</td>
<td>N</td>
</tr>
<tr>
<td>Carbon Tetrachloride</td>
<td>N</td>
<td>Cedarwood Oil</td>
<td>F</td>
</tr>
<tr>
<td>Cellosolve Acetate</td>
<td>N</td>
<td>Chlorine @ 10% in air</td>
<td>G</td>
</tr>
<tr>
<td>Chlorine @ 10% moist</td>
<td>F</td>
<td>Chloroacetic Acid</td>
<td>N</td>
</tr>
<tr>
<td>p-Chloroacetophenone</td>
<td>N</td>
<td>Chloroform</td>
<td>N</td>
</tr>
<tr>
<td>Chromic Acid @ 50%</td>
<td>N</td>
<td>Chromic Acid @ 50%</td>
<td>N</td>
</tr>
<tr>
<td>Cinnamon Oil</td>
<td>F</td>
<td>Citric Acid @ 10%</td>
<td>G</td>
</tr>
<tr>
<td>Cresol</td>
<td>N</td>
<td>Cyclohexane</td>
<td>G</td>
</tr>
<tr>
<td>Decalin</td>
<td>N</td>
<td>o-Dichlorobenzene</td>
<td>N</td>
</tr>
<tr>
<td>p-Dichlorobenzene</td>
<td>N</td>
<td>Diethyl Benzene</td>
<td>N</td>
</tr>
<tr>
<td>Diethyl ether</td>
<td>N</td>
<td>Diethyl Ketone</td>
<td>N</td>
</tr>
<tr>
<td>Chemical</td>
<td>Rating</td>
<td>Chemical</td>
<td>Rating</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>--------</td>
<td>-----------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Diethyl Malonate</td>
<td>N</td>
<td>Diethylene Glycol</td>
<td>F</td>
</tr>
<tr>
<td>Diethylene Glycol Ethyl Ether</td>
<td>N</td>
<td>Dimethylformamide</td>
<td>N</td>
</tr>
<tr>
<td>Dimethyl Sulfoxide</td>
<td>N</td>
<td>1, 4-Dioxane</td>
<td>F</td>
</tr>
<tr>
<td>Dipropylene Glycol</td>
<td>F</td>
<td>Ether</td>
<td>N</td>
</tr>
<tr>
<td>Ethyl Acetate</td>
<td>N</td>
<td>Ethyl Alcohol</td>
<td>G</td>
</tr>
<tr>
<td>Ethyl Alcohol @ 40%</td>
<td>G</td>
<td>Ethyl Benzene</td>
<td>N</td>
</tr>
<tr>
<td>Ethyl Benzoate</td>
<td>N</td>
<td>Ethyl Butyrate</td>
<td>N</td>
</tr>
<tr>
<td>Ethyl Chloride Liquid</td>
<td>N</td>
<td>Ethyl Cyanoacetate</td>
<td>N</td>
</tr>
<tr>
<td>Ethyl Lactate</td>
<td>N</td>
<td>Ethylene Chloride</td>
<td>N</td>
</tr>
<tr>
<td>Ethylene Glycol</td>
<td>F</td>
<td>Ethylene Glycol Methyl Ether</td>
<td>N</td>
</tr>
<tr>
<td>Ethylene Oxide</td>
<td>N</td>
<td>Fluorides</td>
<td>E</td>
</tr>
<tr>
<td>Fluorine</td>
<td>F</td>
<td>Formaldehyde</td>
<td>G</td>
</tr>
<tr>
<td>Perchloric Acid</td>
<td>N</td>
<td>Perchloroethylene</td>
<td>N</td>
</tr>
<tr>
<td>Phenol Crystals</td>
<td>N</td>
<td>Phosphoric Acid @ 5%</td>
<td>E</td>
</tr>
<tr>
<td>Phosphoric Acid @ 85%</td>
<td>G</td>
<td>Pine Oil</td>
<td>E</td>
</tr>
<tr>
<td>Potassium Hydroxide @ 1%</td>
<td>N</td>
<td>Potassium Hydroxide conc.</td>
<td>N</td>
</tr>
<tr>
<td>Propane Gas</td>
<td>N</td>
<td>Propylene Glycol</td>
<td>F</td>
</tr>
<tr>
<td>Propylene Oxide</td>
<td>F</td>
<td>Resorcinol sat.</td>
<td>F</td>
</tr>
<tr>
<td>Resorcinol @ 5%</td>
<td>F</td>
<td>Salicylaldehyde</td>
<td>F</td>
</tr>
<tr>
<td>Salicylic Acid Powder</td>
<td>G</td>
<td>Salicylic Acid sat.</td>
<td>G</td>
</tr>
<tr>
<td>Salt Solutions Metallic</td>
<td>E</td>
<td>Silver Acetate</td>
<td>G</td>
</tr>
<tr>
<td>Silver Nitrate</td>
<td>E</td>
<td>Sodium Acetate sat.</td>
<td>G</td>
</tr>
<tr>
<td>Sodium Hydroxide @ 1%</td>
<td>N</td>
<td>Sodium Hydroxide @ 50%+</td>
<td>N</td>
</tr>
<tr>
<td>Sodium Hypochlorite @ 15%</td>
<td>F</td>
<td>Stearic Acid Crystals</td>
<td>G</td>
</tr>
<tr>
<td>Sulfuric Acid @ 6%</td>
<td>E</td>
<td>Sulfuric Acid @ 20%</td>
<td>G</td>
</tr>
<tr>
<td>Sulfuric Acid @ 60%</td>
<td>F</td>
<td>Sulfuric Acid @ 98%</td>
<td>N</td>
</tr>
<tr>
<td>Sulfur Dioxide Liquid</td>
<td>G</td>
<td>Sulfur Dioxide dry</td>
<td>G</td>
</tr>
<tr>
<td>Sulfur Salts</td>
<td>N</td>
<td>Tartaric Acid</td>
<td>G</td>
</tr>
<tr>
<td>Tetrahydrofuran</td>
<td>N</td>
<td>Thionyl Chloride</td>
<td>N</td>
</tr>
<tr>
<td>Toluene</td>
<td>N</td>
<td>Tributyl Citrate</td>
<td>N</td>
</tr>
<tr>
<td>Trichloroethane</td>
<td>N</td>
<td>Trichloroethylene</td>
<td>N</td>
</tr>
<tr>
<td>Triethylene Glycol</td>
<td>G</td>
<td>Tripropylene Glycol</td>
<td>G</td>
</tr>
<tr>
<td>Turpentine</td>
<td>N</td>
<td>Undecyl Alcohol</td>
<td>F</td>
</tr>
<tr>
<td>Urea</td>
<td>N</td>
<td>Vinylidene Chloride</td>
<td>N</td>
</tr>
<tr>
<td>Xylene</td>
<td>N</td>
<td>Zinc Stearate</td>
<td>E</td>
</tr>
</tbody>
</table>

**Touchscreen Cleaning**

The EZ Series Touch Panel touchscreen has a scratch resistant coating. This adds a slight chemical barrier to the screen, but the coating's primary purpose is to protect the screen from abrasion. The EZ Series Touch Panel touchscreen should be cleaned as needed with warm, soapy water.
Troubleshooting

Problem: Panel won’t power up

Action:
1. Connect power to the EZ Series Touch Panel (24 VDC).
2. Apply power while observing the LED in the back of the panel.
   a. LED does not light means: NO POWER to unit or power supply failed. Check power supply or replace.
   b. LED turns RED and stays RED means: your power supply may be too small (1.5 A supply is recommended!) Make sure that your current capacity is sufficient. For example:
      
      \[
      I = \frac{P}{V} \quad \text{I.E. Current} = \frac{\text{PWR (watts)}}{\text{Supply voltage}}
      \]
      \[
      I = \frac{33}{24 \text{ VDC}} = 1.37 \text{ A}
      \]
   c. LED flashes RED and turns GREEN means: normal operation. 
      (1) the display does not light after 10 seconds, see Display Blank, below.
      (2) the display lights, normal operation.

   See “Connections and Wiring,” this manual, for more information.

Problem: Cannot communicate with EZ Series Touch Panel from Programming Computer

Action:
1. Check cable, ensure that it is the correct cable (EZP-PGMCBL) and that it is properly connected at both ends.
2. Check panel for power.
3. Check to ensure the correct PC COM port is selected in the EZ Series Touch Panel Editor Programming Software and that it is available in the PC.
4. Check the COM1 setting in Setup Mode on the panel (see page 41, this manual).

   See “Connections and Wiring,” this manual, for more information.

Problem: Communications with PLC

Action:
1. Check communications cable:
   a. Is it the right cable?
   b. Is it connected?
   c. Is the cable terminated properly?
2. Check PLC settings:
   a. Is PLC system powered?
   b. Is PLC COM Port properly configured?
   c. If there is a RUN switch on PLC, is it in the term/remote mode?

   See “Connections and Wiring,” this manual, for more information.
Problem: Memory Card

Action:
1. Make sure that the Flash Card is in top slot, and the RAM Card is in the bottom slot.

   See “Connections and Wiring,” this manual, for more information.

Problem: Display Blank

Action:
1. Display indicates “NO POWER UP SCREEN” If this message is displayed the panel battery needs to be replaced.
2. Display is blank. Push extreme upper left and extreme lower left touch cells on front of panel (top and bottom of column 1 on panel.)
   a. There is no change, display remains blank. Indicates UNIT FAILURE, return for service.
   b. Unit SETUP screen appears, screen is hard to read. Adjust screen contrast control for 6- or 8-inch units (10-inch and 15-inch units have no contrast adjustment).
   c. Unit SETUP screen appears normal. Unit has no user program — install user program.

   See “Connections and Wiring,” this manual, for more information.

Problem: Display hangs when unit is powered up, “Initializing...” message remains on screen (unit has invalid RAM memory)

Action:
1. Remove power. While pressing extreme upper and lower left touch cells on the panel, reapply power.
2. You will now be in setup mode, press exit to enter run mode. Screen will be blank.
3. Run EZ Series Touch Panel Editor Programming Software. Select Panel > Clear Memory from main menu bar, or upload a new user program to the panel.
Still need Help?
You have two additional sources for more information other than this manual.

Visit our website at www.EZAutomation.net
Our web site contains all of this information, any new feature releases, technical support, plus much more.

Call our Technical Support Group at 1-877-774-EASY or FAX us at 1-877-775-EASY.

If you have any questions that you can’t find an answer to, give us a call from Monday through Friday, 6 a.m. to 12 a.m. CST at the number above and we will be glad to assist you.

Warranty Repairs
If your EZ Series Touch Panel is under warranty, contact EZAutomation @ 1-877-774-EASY.

Out of Warranty Repairs
If your EZ Series Touch Panel is out of warranty, contact EZAutomation’s Customer Service Department for an evaluation of repair costs @ 1-877-774-EASY. You can then decide whether it is more economical to proceed with factory repairs or purchase a new panel.
This page intentionally left blank.
Appendix A - PLCs Supported by EZ Series Touch Panel

The following diagrams depict the wiring pinouts for the EZ Series Touch Panel to PLC Cables.

**Allen-Bradley SLC500, 5/01, 02, 03 DH-485/AIC, RS-485A (P/N EZ-DH485-CBL)**

**Allen-Bradley SLC500 DH-485/AIC (Point-to-Point)**

**Allen-Bradley SLC500 DH-485/AIC (Multi-drop)**
Allen-Bradley SLC DF1, RS-232C (P/N EZ-SLC-232-CBL)

Allen-Bradley Micrologix 1000/1200/1500 RS-232C (P/N EZ-MLOGIX-CBL)

Allen-Bradley PLC5 DF1 RS-232C (P/N EZPLC5-232-CBL)
Aromat PLC, RS232, Mini DIN 5-pin Male Connector (P/N EZ-ARCOL-CBL)

<table>
<thead>
<tr>
<th>Aromat PLC</th>
<th>RS-232</th>
<th>PLC Port</th>
</tr>
</thead>
<tbody>
<tr>
<td>FPSIGMA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Tool Port)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2) SD</td>
<td></td>
<td>(3) RXD</td>
</tr>
<tr>
<td>(3) RD</td>
<td></td>
<td>(2) TXD</td>
</tr>
<tr>
<td>(1) SG</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

D-Sub 15-pin Male

Mini DIN 5-pin Male
Non-standard Connector
Control Techniques Unidrive 4-wire, RS-485, D-Sub Female 9 position (P/N EZ-CTRLUNI-CBL)

Control Techniques Unidrive 2-wire, RS-485, D-Sub Female 9 pin (P/N EZ-CTRLUNI-CBL-1)

The hardware connection for the Control Techniques Unidrive PLCs is RS-485 (2-wire or 4-wire).
Control Technology Corporation (CTC) PLC, RS232, RJ-12 Port (P/N EZ-CTCBI-CBL)

The hardware connection for the CTC2600 and CTC2700 is RS-232C.
DirectLogic PLC RJ-12, DL05, DL105, DL205, DL350, and DL450, RS-232C (P/N EZ-2CBL)

DirectLogic PLC VGA 15-pin, 250, 250-1, 260, 06 RS-232C (P/N EZ-2CBL-1)

DirectLogic PLC RJ-11, 340, RS-232C (P/N EZ-3CBL)
DirectLogic PLC 15-pin D-SUB, DL405, RS-232C (P/N EZ-4CBL-1)

DirectLogic PLC 25-pin D-SUB, DL405, 350, 305 DCU, and all DCMs, RS-232C (P/N EZ-4CBL-2)
Idec Micro 3 PLC, RS485, D-Sub Male 15 pin (P/N EZ-IDECM-CBL)
Idec MicroSMART PLC, RS232, 8 pin Mini DIN Male
(P/N EZ-IDECS-CBL)
General Electric 90/30 and 90/70 15-pin D-SUB, RS-422A (P/N EZ-90-30-CBL)

![Diagram of GE Fanuc 90/30 to RS-422 to PLC Port Connection]

Mitsubishi FX Series 25-pin, RS-422A (P/N EZ-MITSU-CBL)

![Diagram of Mitsubishi FX Series to RS-422 to PLC Port Connection]
Mitsubishi FX Series 8-pin MINI-DIN, RS-422A (P/N EZ-MITSU-CBL-1)

Wiring Diagram for the 984 CPU, Quantum 113 CPU

Modicon ModBus RS-232 (P/N EZ-MODRTU-CBL)
Wiring Diagrams for AEG Modicon MICRO Series: 110 CPU 311-xx, 110 CPU 411-xx, 110 CPU 512-xx, 110 CPU 612-xx

Modicon ModBus with RJ45 (P/N EZ-MODRJ-CBL)
Omron C200, C500, RS-232C (P/N EZ-OMRON-CBL)

Omron Host Link

<table>
<thead>
<tr>
<th>Port</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TXD</td>
<td>(2)</td>
</tr>
<tr>
<td>RXD</td>
<td>(3)</td>
</tr>
<tr>
<td>GND</td>
<td>(7)</td>
</tr>
<tr>
<td>CTS</td>
<td>(4)</td>
</tr>
<tr>
<td>RTS</td>
<td>(5)</td>
</tr>
</tbody>
</table>

RS-232

<table>
<thead>
<tr>
<th>Port</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>(6)</td>
<td>TXD</td>
</tr>
<tr>
<td>(1)</td>
<td>RXD</td>
</tr>
</tbody>
</table>

PLC Port

<table>
<thead>
<tr>
<th>Port</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>D-sub 15-pin Male</td>
<td></td>
</tr>
</tbody>
</table>

D-sub 25-pin Male

---

Omron CQM1 and CPM1

Omron CQM1, CPM1, CPM2 & C200

<table>
<thead>
<tr>
<th>Omron</th>
<th>EZPanel</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 (SD)</td>
<td>3 (RXD)</td>
</tr>
<tr>
<td>3 (RD)</td>
<td>2 (TXD)</td>
</tr>
<tr>
<td>9 (SG)</td>
<td>5 (GND)</td>
</tr>
<tr>
<td></td>
<td>1 (Shield)</td>
</tr>
</tbody>
</table>

9 pin DSUB (male) 15 pin DSUB (male)

---

Omron CQM1 using CQM1-CIF02

<table>
<thead>
<tr>
<th>CIF02</th>
<th>EZPanel</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 (RXD)</td>
<td>2 (TXD)</td>
</tr>
<tr>
<td>3 (TXD)</td>
<td>3 (RXD)</td>
</tr>
<tr>
<td>5 (GND)</td>
<td>5 (GND)</td>
</tr>
<tr>
<td></td>
<td>1 (Shield)</td>
</tr>
</tbody>
</table>

9 pin DSUB (male) 15 pin DSUB (male)
Siemens S7 MPI Adaptor, RS-232C (P/N EZ-S7MPI-CBL)

Siemens S7 MPI Adaptor

<table>
<thead>
<tr>
<th>Siemens S7 MPI Adaptor</th>
<th>RS-232</th>
<th>Panel PLC Port</th>
</tr>
</thead>
<tbody>
<tr>
<td>RXD (2)</td>
<td>(2) TXD</td>
<td></td>
</tr>
<tr>
<td>TXD (3)</td>
<td>(3) RXD</td>
<td></td>
</tr>
<tr>
<td>GND (5)</td>
<td>(5) GND</td>
<td></td>
</tr>
<tr>
<td>RTS (7)</td>
<td>(7) CTS</td>
<td></td>
</tr>
<tr>
<td>CTS (8)</td>
<td>(8) RTS</td>
<td></td>
</tr>
</tbody>
</table>

Siemens S7_200 PLC, RS485, D-Sub Male 9 pin (P/N EZ-S7200-CBL)

S7 200 PLC

<table>
<thead>
<tr>
<th>9-pin Dsub (male)</th>
<th>15-pin Dsub (male)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>
Square D Symax, RS-422A, D-Sub Male 9 pin (P/N EZ-SYMAX-CBL)

Texas Instruments 505 Series PLC, RS-232C, D-Sub Female 9 pin (P/N EZ-TX505-CBL)
Texas Instruments 545-1102 Series PLC, RS-422A, D-Sub Male 9 pin (P/N EZ-TX545-CBL)

Texas Instruments 545-1104 Series PLC, RS-422A, D-Sub Female 9 pin (P/N EZ-TX545-CBL-1)
Uni-Telway Telemecanique TSX 37 Micro PLC, RS485, 8 pin Mini DIN Male
(P/N EZ-MODUNI-CBL)
EZ Series Touch Panel RS-422A/RS-485A Wiring Connections for DirectLogic PLCs

For RS-422A and RS-485A connections, we recommend Belden 9729 cable or equivalent. Please note: The Termination Resistor is built in to pin 13 of EZ Series Touch Panels. Jumper pin 13 to pin 9 (RXD+) to enable.

**RS-422A**

<table>
<thead>
<tr>
<th>Panel</th>
<th>Port 1</th>
<th>Port 2</th>
<th>Port 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>05 Logic GND</td>
<td>430/440/450</td>
<td>350</td>
<td></td>
</tr>
<tr>
<td>10 RXD-</td>
<td>07 0v</td>
<td></td>
<td>07 0v</td>
</tr>
<tr>
<td>09 RXD+</td>
<td>16 TXD-</td>
<td></td>
<td>13 TXD-</td>
</tr>
<tr>
<td>12 TXD-</td>
<td>14 TXD+</td>
<td></td>
<td>12 TXD-</td>
</tr>
<tr>
<td>11 TXD+</td>
<td>10 RXD-</td>
<td></td>
<td>25 RXD+</td>
</tr>
<tr>
<td>13</td>
<td>09 RXD+</td>
<td></td>
<td>24 RXD+</td>
</tr>
<tr>
<td>09</td>
<td></td>
<td>18 RTS-</td>
<td></td>
</tr>
<tr>
<td>09</td>
<td></td>
<td>19 RTS+</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
<td>23 CTS-</td>
<td></td>
</tr>
<tr>
<td>09</td>
<td></td>
<td>11 CTS+</td>
<td></td>
</tr>
<tr>
<td>09</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

RTS and CTS is not present on this port
### RS-485A

<table>
<thead>
<tr>
<th>Panel</th>
<th>Port 2</th>
<th>D0-06</th>
<th>D2-260</th>
</tr>
</thead>
<tbody>
<tr>
<td>05</td>
<td>Logic GND</td>
<td>07</td>
<td>0v</td>
</tr>
<tr>
<td>10</td>
<td>RXD-</td>
<td>10</td>
<td>TXD-</td>
</tr>
<tr>
<td>12</td>
<td>TXD-</td>
<td>06</td>
<td>RXD-</td>
</tr>
<tr>
<td>09</td>
<td>RXD+</td>
<td>13</td>
<td>RXD+</td>
</tr>
<tr>
<td>11</td>
<td>TXD+</td>
<td>09</td>
<td>TXD+</td>
</tr>
<tr>
<td>13</td>
<td></td>
<td>12</td>
<td>RTS-</td>
</tr>
<tr>
<td>09</td>
<td></td>
<td>11</td>
<td>RTS+</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15</td>
<td>CTS-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>14</td>
<td>CTS+</td>
</tr>
</tbody>
</table>

#### EZ Series Touch Panel RS-422A Wiring Connections for Allen-Bradley SLC 503/504 RS-232 Port

<table>
<thead>
<tr>
<th>Touch/Text Panel</th>
<th>PLC Port</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>05 Logic GND</td>
</tr>
<tr>
<td></td>
<td>10 RXD-</td>
</tr>
<tr>
<td></td>
<td>09 RXD+</td>
</tr>
<tr>
<td></td>
<td>12 TXD-</td>
</tr>
<tr>
<td></td>
<td>11 TXD+</td>
</tr>
<tr>
<td></td>
<td>13 Terminal resistor</td>
</tr>
</tbody>
</table>

**Note:** The Termination resistor is built into the panel.

*You provide RS 422 cable. We recommend Belton 5723 or Equivalent.*

**Note:** The Baud rate and Parity must match between the Touch Panel and the PLC. Depending on distance it may be necessary to increase the Timeout Time on the Touch Screen. This can be done in the software by selecting Setup/Select PLC/View/Edit attributes.

<table>
<thead>
<tr>
<th>Touch/Text Panel</th>
<th>FA-ISONET</th>
<th>AB RS232 Port</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>* Refer to the FA-ISONET documentation for jumper positions.</td>
<td></td>
</tr>
</tbody>
</table>

**AB Chan. 0 RS232 Configuration**

<table>
<thead>
<tr>
<th>Driver</th>
<th>DF 1 Full Duplex</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baud</td>
<td>9600, 19200, 38400 etc.</td>
</tr>
<tr>
<td>Parity</td>
<td>Even</td>
</tr>
<tr>
<td>Control Line</td>
<td>No Handshaking</td>
</tr>
<tr>
<td>Error Detection</td>
<td>BCC</td>
</tr>
<tr>
<td>Embedded Resp.</td>
<td>Enabled</td>
</tr>
<tr>
<td>ACK Time</td>
<td>50</td>
</tr>
<tr>
<td>NAK Retries</td>
<td>3</td>
</tr>
<tr>
<td>ENQ Retries</td>
<td>3</td>
</tr>
</tbody>
</table>

**Diagram:**

- RS-485A pinout diagram
- RS-232 pinout diagram with labels

---

A-19

Appendix A - PLCs Supported by EZ Series

EZ-PANEL-M
EZAutomation EZ Series PLC 9-Pin D-SUB RS-232 (P/N EZP-CBL)

![Diagram of D-sub 9-pin to 15-pin RS-232 connection](image-url)
Symbols
15-pin D-Sub, 29
6-inch Slim Bezel models, 27
   DIN Clip Mounting, 27
62-Pin Socket, 33, 35
9-pin D-Sub Connector, 29

A
accessories, 11
adjustable features, 17
Allen-Bradley
   A-B DH+ option cards
   PLC Port, 30
   PLC Cable Wiring Diagrams
   Micrologix 1000/1200/1500 RS-232, A-2
   PLC5 DF1 RS-232, A-2
   SLC DF1 RS-232 (P/N EZ-SLC-232-CBL), A-2
   SLC500, 5/01, /02, /03 DH-485/AIC, A-1
   SLC500 DH-485/AIC (Multi-drop), A-1
   PLC Wiring Diagrams
   RS-422A, A-20
   alphanumeric entry, 9
   Analog Clock, 9
   application, 2
   Aromat, 10
   AS-MBKT-085 Modicon line connector, 38
   AS-MBKT-185 Modicon terminating connector, 38

B
Back View, 29
BACKPLANE
   EZEthernet Installation, 34
   Backplane connector, 32
Battery
   1/2 AA, 3.6 V Lithium Battery, 47
   low battery, 45
   replace, 47
   Belden 9729 cabl, A-19
   bitmaps, 9
   Boot program, 41
   Bottom View, 29
   brackets, 27

C
cable, 55
calendar, 9
captive washers, 23, 24, 25, 26
CARD CONNECTOR, 34
card slot, 50

CAUTION
   battery removal, 27, 47
   DIN Clips, 27
   removing RAM or Flash card, 49, 50
   thread locking compound, 17, 18
   CC Link, 10
   CC Link Option Card, 40
   CD ROM, 3
   chassis ground, 29
   chemical barrier, 54
   Chemical Compatibility, 52
   Cleaning, 54
   clearance, 18
   Clock, 9, 17, 41
   COM1 Port, 17, 29, 31, 42
   communication settings, 17
   Communications
cable, 55
   from EZ Series Touch Panel to Computer, 55
   ports, 9
   Setup, 17, 41
   Communications Setup, 17
   Computer, 42
   connections, 17
   Connections and Wiring, 17, 29
   Connector
   EZ-S6C-FH, EZ-S6C-FSH, 32
   EZ-S6M-FH, EZ-S6M-FSH, 32, 36, 37, 38, 39, 40
   EZ-S8C-FH, 32
   connector
   Allen-Bradley DH+ Option Card, 33
   EZEthernet, 34
   EZEthernet option card, 35
   Generic DeviceNet I/O Option Card, 36
   Generic Ethernet/IP Option Card, 37
   Generic Profibus-DP Option Card, 39, 40
   Modicon Modbus Plus, 38
   context sensitive onscreen help, 3
   Contrast, 17, 43
   contrast adjustment feature, 43
   contrast range, 43
   Control Techniques, 10
   Control Technology Corporation (CTC), 10
   cooling, 18
   CTC, 10
   cutout, 18
   cutout dimensions — See Dimension Drawings

D
Data Highway Plus Models, 8
Day, 42
DC powered, 17
Design screens, 2
Dimension Drawings
Dimensions (Outline)
EZ-S8C-FS and EZ-S8C-FSH, 21, 22
EZ-T10C-FS, EZ-T10C-FSH, EZ-T10C-FSD,
EZ-T10C-FSE, 23, 24
EZ-T15C-FS, EZ-T15C-FSH, EZ-T15C-FSD,
EZ-T15C-FSE, 25, 26
EZ-T15C-FSM, EZ-T15C-FSP, 25, 26
Outline & Cutout
EZ-S6M-RS, EZ-S6M-FS, EZ-S6M-FSH, 20
EZ-T10C-FSM, EZ-T10C-FSP, 23, 24
DIN Clip Slot Location, 27
EZ-S6C-F, 27
EZ-S6C-FH, 27
EZ-S6C-K, 27
EZ-S6M-F, 27
EZ-S6M-FH, 27
EZ-S6M-R, 27
DIN Clip tab, 27, 28
DIN Clips, 17, 18, 27
DIP Switches
EZ Ethernet, 35
EZ Ethernet Option Card, 34
Generic DeviceNet I/O Option Card, 36
Generic Ethernet/IP Option Card, 37
Modicon Modbus Plus Option Card, 38
DirectLogic PLC Cable Wiring Diagrams
15-pin D-SUB (P/N EZ-4CBL-1), DL40, A-7,
A-8
25-pin D-SUB (P/N EZ-4CBL-2), A-7
RJ-11 (P/N EZ-3CBL), A-6
RJ-12 (P/N EZ-2-CBL), A-5, A-6
VGA 15-pin (P/N EZ-2CBL-1), 250 RS, A-3,
A-6
DirectLogic PLC Wiring Diagrams
RS-422A and RS-485A, A-19
Display Blank, 56
Display Test, 44

E

ETHERNET, 34
Exit, 44
EZ PLC, 10
EZ-BAT, 47
EZ-BRK-1, 27
EZ-ETHERNET, 34
EZ-ETHERNET-M, 35
EZ-FLASH-1, 50
EZ-FLASH-2, 50

EZ-S8C-FS and EZ-S8C-FSH Dimensions &
Cutout, 21, 22
EZ-T10C-FS and EZ-T10C-FSH Dimensions &
Cutout, 23, 24
EZ-T15C-FS and EZ-T15C-FSH Dimensions &
Cutout, 25, 26
EZ-PANELEDIT-M, 2
EZEthernet Option Card, 34
Installation Instructions, 34
Outline Drawing, 35
EZEthernet Option Card Installation Instructions,
34
EZEthernet Option Card Manual, 35
EZ Series Touch Panel install, 2
Programming Cable, 31
Programming Software, 2
Software Manual, 2
EZ Series Touch Panel -PGMCBL, 29
EZ Series Touch Panel-GSK, 48
EZ Series Touch Panel-GSK and
EZ Series TOUCH PANEL-6S-GSK, 48
EZ Series Touch Panel-GSK, 48

F

F1 function key, 3
factory default values, 17
Features, 9
Firmware, 41
firmware upgrade, 9
FLASH Card, 50
Flash memory, 41
Flash option card, 45
FLASH Program Backup, 50
Fluorescent Backlight Bulb Replacement, 51
Fly-Over HELP, 3
Front Bezel, 28
front bezel, 27
front-panel mount, 17
fuse, 50
Fuse Reset, 50

G

Gasket Replacement, 48
6-inch Slim Bezel Models, 48
gasket slot, 48
General Electric PLC Wiring Diagram, A-10
Generic DeviceNet I/O, 36
Generic Ethernet/IP, 37
Generic Profibus-DP, 39
get started, 3
GND, 29
H
Hardware, 3, 41
Help, 3, 57
windows, 3
Hr, 42

I
IBM, 3
ideal conditions, 52
Idec, 10
Install
installing EZ Series Touch Panel Programming Software, 2
Installing the EZ Series Touch Panel, 17
program, 2
interface boards, 30
internal fuse, 50

L
languages, 9
LED, 29, 48, 55
Configuration ERROR, 33
Transmit Enable, 33
LEDs
Allen-Bradley DH+ Option Card, 33
DeviceNet I/O Option Card, 36
DH+, 33, 36, 37, 39, 40
EZ Ethernet option card, 34
EZEthernet option card, 35
Generic Ethernet/IP Option Card, 37
Generic Profibus-DP Option Card, 39, 40
Modicon Modbus Plus Option Card, 38
line connector, 38
Lithium Battery Replacement, 47

M
Maintenance, 2
Manual
organization, 1
MBP, 38
Memory Card, 56
metal brackets, 27
Meters, 9
Min, 42
Mitsubishi CC Link, 10, 40
Mitsubishi FX Series
8-pin MINI-DIN RS-422, A-12
Mitsubishi FX Series PLC Wiring Diagram
25-pin RS-422A, 40, A-9, A-10
Modbus Plus, 38
Modicon

PLC Wiring Diagram
AEG Modicon MICRO Series, A-13
Modicon ModBus with RJ45, A-13
Modicon Modbus Plus, 38
Mon, 42
Mounting, 2, 17, 18, 27
Hardware, 19, 20
Mounting Panel, 27, 28
mouse, 3
mouse cursor, 3

node address, 38
Nonvolatile flash card, 9
nonvolatile storage, 45
numeric, 9

offline, 2
Omron PLC Wiring Diagram
C200, C500 RS-232C, A-14
CQM1 and CPM1, A-14
online, 2
Onscreen HELP, 3
onscreen prompts, 2
operator interfaces, 2
Option Card
Allen-Bradley Data Highway Plus, 33
EZ Ethernet, 34
Generic Devicenet I/O, 36
Generic Ethernet/IP, 37
Generic Profibus-DP, 39
Installation, 32
Modicon Modbus Plus, 38
Optional Equipment, 11
outline, 18
outline dimensions — See Dimension Drawings

palette, 9
Panel Status Indicator Light, 48
panel tests, 17
PC, 3
PID Faceplates, 9
pinout, 30
pixel, 44
PLC, 10, 17
addresses, 9
Cable, 29
connector, 29, 30
memory locations, 9
Port, 17, 29, 30
Index

Wiring Diagrams, 2
PLC Cable Part Numbers
   CBL-UTICW-012, A-15
   P/N EZ-2-CBL, A-6
   P/N EZ-2CBL-1, A-6
   P/N EZ-3CBL, A-6
   P/N EZ-4CBL-1, A-7
   P/N EZ-4CBL-2, A-7
   P/N EZ-90-30-CBL, A-10
   P/N EZ-DH485-CBL, A-1
   P/N EZ-MITSU-CBL, A-10
   P/N EZ-MITSU-CBL-1, A-12
   P/N EZ-MLOGIX-CBL, A-2
   P/N EZ-OMRON-CBL, A-14
   P/N EZ-S7MPI-CBL, A-15
   P/N EZ-SLC-232-CBL, A-2
   P/N EZPLC5-232-CBL, A-2

PLC connector
   Allen-Bradley Data Highway Plus, 33
   polyester surface, 52

Power
   Connector, 29, 30
   source, 17, 29
   Supply, 55
   Terminal, 29, 30

Precautions, 51

Printer, 9, 17, 29, 42
programmable graphic operator interface
   devices, 2
Programming
   computer, 17
PC Cable, 29

Q
   questions, 57

R
   RAM, 9
      card slot, 49
      memory, 41, 49
      Upgrade, 49
   reboot, 44
   redo, 9

Regulated power source, 30
Remote I/O, 32

Removing
   Battery, 47
   memory card, 49
   power, 45

Replacement Equipment, 11
Rotary Address Switches, 39, 40

RS-232 EZ Series Touch Panel Programming
   Cable, 31
   RS-232C, 17, 29
   RS-232C Programming Cable, 3
   RS-422A, 17, 29
   RS-422A connections, A-19
   RS-422A Wiring for A-B SLC 503/504 RS-232
      Port, A-20
   RS-422A/RS-485A Wiring Connections, A-19
   RS-485A, 17, 29
   RXD, 38

S
   scratch resistant coating, 54
   Screen Saver, 51
   screens, 9
   Sec, 42
   Selector Switch, 9
   serial port, 3
   Setup, 17
   Setup Mode, 17, 41
   Shutting Off Power, 45
   Siemens S7 MPI Adaptor
   Siemens S7 MPI Adaptor, RS-232C (P/N EZ-
      S7MPI-CBL), A-15, A-16, A-17
   Slide Switch, 9
   Software, 3
   special interface boards, 29
   Specifications
      8-inch, 10-inch, 15-inch Slim Bezel, 15
      8-inch and 10-inch Standard Bezel, 14
   Square D Symax, 10
   Status LED, 29
   Stud Mounting, 18
   Studs, 18
   Switches
      Generic Profibus-DP Option Card, 39, 40

T
   tag, 9
   Technical Support, 4, 57
   Termination Switch, 39, 40
   Test screen, 43
   tests, 17
   TFT Color units, 43
   thread locking compounds, 17
   Throw Switch, 9
   Thumbwheel Object, 9
   time and date, 41
   Toggle Switch, 9
top slot, 56
topics, 1
Touchpad Test, 17, 43
Touchscreen Cleaning, 54
Touchscreen/Chemical Compatibility, 52
Troubleshooting, 2, 55
TXD, 38

U
undo, 9
Universal Ethernet, 10
upgrade, 11
user program backup, 9

V
VGA display, 3

W
Windows-based, 2
Wiring, 2, 17, 29
  Diagram, 29
  diagram, 31
  RS-422, A-19

Y
Yr, 42