Maintenance and Troubleshooting

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In this chapter....

Maintenance

Fuse Reset
The EZText Panel features an AUTO-RESET fuse (0.65 Amp polyfuse). It is reset by removing power for 5 minutes and then reapplying power to the unit.

Precautions
To ensure the longevity and effectiveness of the EZText Panel, please take note of the following precautions:

- Do not press sharp objects against the pushbuttons or screen overlay.
- Do not strike the panel with hard objects.
- Do not press the pushbuttons or screen overlay 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.

Screen Overlay/Chemical Compatibility
The screen overlay 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 polyester surface of the overlay. Use the chart to determine those chemicals that are safe to use around your EZText Panel and those that may harm the overlay. The list rates these chemicals as **E—Excellent**, **G—Good**, **F—Fair**, and **N—Not Recommended.** Because the ratings are for conditions at 134 °F (57°C), consider all factors when evaluating your application.

CHEMICAL	RATING	CHEMICAL	RATING
Acetaldehyde	N	Ammonium Hydroxide @ 5%	N
Acetamide	N	Ammonium Hydroxide @ 30%	N
Acetic Acid @ 5%	G	Ammonium Oxalate	E
Acetic Acid @ 50%	G	Ammonium Salts	G
Acetone	N	n-Amyl Acetate	N
Acetonitrile	N	Amyl Chloride	N
Acrylonitrile	N	Aniline	N
Adipic Acid	E	Benzaldehyde	N
Alanine	N	Benzene	N
Allyl Alcohol	F	Benzoic Acid	G
Alum. Hydroxide	N	Benzyl Acetate	G
Aluminum Salts	G	Benzyl Alcohol	G
Amino Acids	E	Bromine	F
Ammonia	N	Bromobenzene	N
Ammonium Acetate	E	Bromoform	N
Ammonium Gloclate	F	Butadiene	N

CHEMICAL	RATING	CHEMICAL	RATING
n-Butyl Acetate	N	Ethylene Oxide	N
n-Butyl Alcohol	F	Fluorides	E
sec-Butyl Alcohol	F	Fluorine	F
tert-Butyl Alcohol	F	Formaldehyde	
Butyric Acid	N	Formaldehyde @ 40%	G
Calcium Hydroxide	N	Formic Acid @ 3%	G
Calcium Hypochlorite	N	Formic Acid @ 50%	G
Carbazole	N	Formic Acid @ 99%	F
Carbon Disulfide	N	Fuel Oil	G
Carbon Tetrachloride	N	Gasoline	F
Cedarwood Oil	F	Glacial Acetic Acid	N
Cellosolve Acetate	N	Glycerin	E
Chlorine @ 10% in air	G	n-Heptane	G
Chlorine @ 10% moist	F	Hexane	N
Chloroacetic Acid	N	Hydrochloric Acid @ 5%	E
p-Chloroacetophenone	N	Hydrochloric Acid @ 20%	F
Chloroform	N	Hydrochloric Acid @ 35%	N
Chromic Acid @ 10%	N	Hydrofluoric Acid @ 5%	F
Chromic Acid @ 50%	N	Hydrofluoric Acid @ 48%	N
Cinnamon Oil	F	Hydrogen Peroxide @ 5%	E
Citric Acid @ 10%	G	Hydrogen Peroxide @ 30%	E
Cresol	N	Hydrogen Peroxide @ 90%	E
Cyclohexane	G	Isobutyl Alcohol	G
Decalin	N	Isopropyl Acetate	N
o-Dichlorobenzene	N	Isopropyl Alcohol	E
p-Dichlorobenzene	N	Isopropyl Benzene	N
Diethyl Benzene	N	Kerosene	E
Diethyl ether	N	Lactic Acid @ 3%	G
Diethyl Ketone	N	Lactic Acid @ 85%	G
Diethyl Malonate	N	Methoxyethyl Oleate	N
Diethylene Glycol	F	Methyl Alcohol	F
Diethylene Glycol Ethyl Ether	N	Methyl Ethyl Ketone	N
Dimethylformamide	N	Methyl Isobutyl Ketone	N
Dimethyl Sulfoxide	N	Methyl Propyl Ketone	N
1, 4-Dioxane	F	Methylene Chloride	N
Dipropylene Glycol	F	Mineral Oil	G
Ether	N	Nitric Acid @ 10%	G
Ethyl Acetate	N	Nitric Acid @ 50%	F
Ethyl Alcohol	G	Nitric Acid @ 70%	N
Ethyl Alcohol @ 40%	G	Nitrobenzene	N
Ethyl Benzene	N	n-Octane	F
Ethyl Benzoate	N	Orange Oil	F
Ethyl Butyrate	N	Ozone	G
Ethyl Chloride Liquid	N	Perchloric Acid	N
Ethyl Cyanoacetate	N	Perchloroethylene	N
Ethyl Lactate	N	Phenol Crystals	N
Ethylene Chloride	N	Phosphoric Acid @ 5%	E
Ethylene Glycol	F	Phosphoric Acid @ 85%	G
Ethylene Glycol Methyl Ether	N	Pine Oil	E

CHEMICAL	RATING	CHEMICAL	RATING
Potassium Hydroxide @ 1%	N	Sulfuric Acid @ 60%	F
Potassium Hydroxide conc.	N	Sulfuric Acid @ 98%	N
Propane Gas	N	Sulfur Dioxide Liquid	G
Propylene Glycol	F	Sulfur Dioxide dry	G
Propylene Oxide	F	Sulfur Salts	N
Resorcinol sat.	F	Tartaric Acid	G
Resorcinol @ 5%	F	Tetrahydrofuran	N
Salicylaldehyde	F	Thionyl Chloride	N
Salicylic Acid Powder	G	Toluene	N
Salicylic Acid sat.	G	Tributyl Citrate	N
Salt Solutions Metallic	E	Trichloroethane	N
Silver Acetate	G	Trichloroethylene	N
Silver Nitrate	E	Triethylene Glycol	G
Sodium Acetate sat.	G	Tripropylene Glycol	G
Sodium Hydroxide @ 1%	N	Turpentine	N
Sodium Hydroxide @ 50%+	N	Undecyl Alcohol	F
Sodium Hypochlorite @ 15%	F	Urea	N
Stearic Acid Crystals	G	Vinylidene Chloride	N
Sulfuric Acid @ 6%	E	Xylene	N
Sulfuric Acid @ 20%	G	Zinc Stearate	E

Screen Overlay Cleaning

The EZText Panel screen should be cleaned as needed with warm, soapy water.

Gasket Replacement

The gasket may need to be replaced if it becomes damaged or worn. To replace the gasket, use P/N EZ-TEXT-S-GSK for the small models, EZ-220 and EZ-420. Use P/N EZ-TEXT-L-GSK for the large model (EZ-220L). To replace the gasket perform the following steps:

1. The gasket is removed and replaced from the back of the unit. Ensure that all pieces of old gasket have been removed from the panel enclosure surface where the gasket is affixed.

2. Remove the new replacement gasket from its plastic bag.

3. Remove the temporary protective covering from the adhesive side of the gasket.

4. Position gasket (adhesive side down) over the panel gasket surface and press firmly.

Troubleshooting

In this section we will explain how to isolate potential problems. If you cannot isolate and remedy the problem using the procedures we have outlined below, call technical support. For a list of EZText Panel, EZText Programming Software, and PLC Driver Error Messages, see Appendix C.

Panel Configuration Problems

EZText Panel Programming Software is used to create panel applications and to download/upload panel programs. If you are online with the EZText Panel and communication fails, the following error message is displayed:
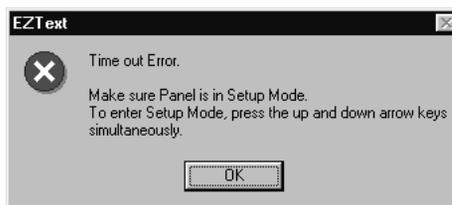

If you receive this EZText Panel Programming Software error message, check the following:

1. On the rear panel of the unit, observe Serial Port Communication TXD/RXD LEDs while attempting to Upload/Download a program. Both LEDs should be slowly and alternately flashing to indicate that the programming PC and the panel are connected. If the TXD (transmitter) LED is the only one flashing, or if the TXD/RXD LEDs are NOT alternating between flashes, check to ensure that the EZ Text Panel is set to the Setup (programming) Mode. (To enter the Setup Mode, press and hold the UP Arrow Button while simultaneously pressing the DOWN Arrow button.)

2. Check to ensure that the programming cable (part number EZTEXT-PGMCBL) is properly connected at both ends.

3. Check that the correct communications port is selected with the EZText Programming Software (i.e., COM1, COM2)

4. Check the 24 VDC power source and its connections.

5. After completing steps 1 through 4, above, repeat the procedure to Upload/Download a program.

PLC Errors

If you experience communication problems between the EZText Panel and your PLC, you will receive an error message that is unique to that particular PLC. Look in the **Appendix C** of this manual, or the EZText Panel Programming Software Help for error messages for your type PLC. Each PLC Help topic lists the error messages and provides an explanation for each PLC driver. To access the PLC Help topics, perform the following steps.

a. Run EZText Panel Programming Software.
b. From the Main Menu, click on **Help > Help Topics**.
c. Under the **Contents** tab, find the type PLC you are using (next to a closed book icon) and click on it to view help topics.
d. Click on Driver Errors Topic.
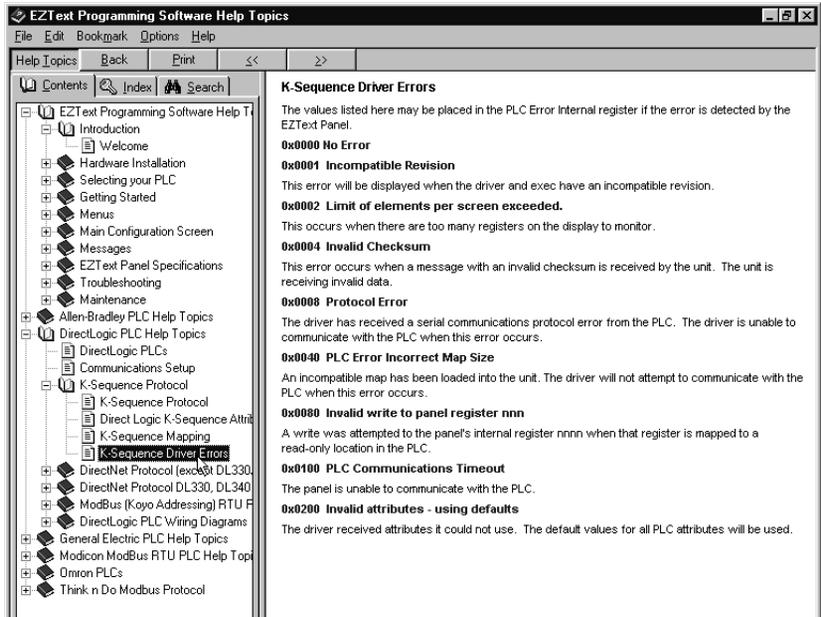
You may also notice that the **Pushbuttons**, **Pushbutton LEDs**, and/or **Messages** are not working, Check the following:

1. Observe the TXD and RXD LEDs on the rear of the panel. If both LEDs are not steadily flashing or illuminated (depending upon the baud rate) check to ensure the proper communications cable is connected securely at both ends.

2. Check the PLC Communication information for the PLC type, protocol, baud rate, parity, stop bits, and address number. Use the PLC manual to determine the proper settings.

3. If you have configured your own cable, verify cable pinout using the PLC Wiring diagrams provided in Appendix B.

4. Check the 24 VDC power source.

5. If connected to a multiplexer, connect the panel directly to the PLC port.

6. Verify that the EZText Panel registers are mapped correctly. Does the EZText Panel register exist in the PLC? Is the register Read Only? Is the register Write Only?

Still need Help?
You have two additional sources for more information other than this manual.

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

Call our **Technical Support Group** Monday–Friday at **1-770-844-4200** or FAX us at **1-770-886-3199.**

If you have any questions that you can't find an answer to, give us a call from 9 a.m. to 6 p.m. EST at the number above and we will be glad to assist you.

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Warranty Repairs

If your EZText Panel is under warranty, **contact Automationdirect.com @ 1-770-844-4200.**

Out of Warranty Repairs

If your EZText Panel is out of warranty, **contact AVG's Service Department for an evaluation of repair costs @ 1-563-359-7501**. You can then decide whether it is more economical to proceed with factory repairs or purchase a new panel.

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Frequently Asked Questions (FAQs)

1. **How do I format an address string when connecting to multiple PLCs?**
    Add the PLC station number to the beginning of the address string. Ex: PLC station is 3 and the address is v2000 the string would look like this, 3-V2000.

2. **Can I convert a project from one EZText Panel type to another?**
    Yes, to do this simply change the panel type from one to another. This will keep all address and message information intact. The only exception is switching from any of the panels to the Set Point panel. This will cause all messages and addressing to be deleted. *Note: Switching panel types does not create a new project. If you wish to create a new project select NEW from the FILE menu.*

3. **Can I connect multiple panels to a single PLC?**
    Yes, there are two methods of doing this. The first would be to use the multiplexer (P/N EZ-MULTIDROP). You can connect up to five panels per multiplexer, and one multiplexer per serial port. The second method is to connect one panel per serial port.

4. **What is the maximum number of messages I can have in a project?**
    The maximum amount of PLC and Local messages is 256.

5. **What are Local Messages?**
    A Local Message is a text message that is used to provide instructions or information to the machine operator using a hierarchical file structure. The operator can scroll through these messages using the arrow keys to find information pertaining to a particular part of a process.

6. **What are PLC Messages?**
    A PLC Message is a text message that can be triggered by the PLC to provide the operator with important instructions, information, or warnings. PLC Messages will be displayed for 3 seconds before they can be cleared in order to make sure the operator has a chance to read the message. The operator can also view the last PLC Message displayed by pressing the **esc** key.

7. **How many characters can I have per message?**
    The maximum number of characters per message is 20. This is true for all messages except folder names. They are limited to 19 because of the plus "+" or minus "-" sign displayed at the beginning of the

folder name. (When using the Set Point panel, the maximum number of characters per message is 16.)

8. **I am using an EZ-220 panel and I can not access the password option. How do I do this?**
   The only panel that can have password protection is the EZ-220P. This is because the EZ-220P is the only panel that has a key pad usable for data entry.

9. **What is the maximum number of Embedded Data values I can have in a project?**
   The maximum number of Embedded Data values in a project is 300.

10. **How do I get my panel into Setup Mode?**
    To get the panel into Setup Mode press and hold the up arrow key while simultaneously pressing the down arrow key. To exit Setup Mode, press the **ESC** key.

11. **How do I get my panel to display PLC Messages?**
    To display a PLC message, using your ladder logic, place the number of the PLC Message you wish to display into one of the PLC Message Line Addresses (up to four if using the EZ-420). When the message number is placed in this register the panel will display the message corresponding with that number.

    Example: I want to display PLC Message One on Line One of my panel display. Using the ladder logic, I write a value of 1 to register V2000, which is set as PLC Message Line Address One. The panel displays PLC Message One on Line One of my panel display. The message will remain on the display until the **ESC** key is pressed.

12. **Why won't the panel display the same PLC Message twice in a row on the same message line?**
    This is because the message line must be reset by either setting the Line Register to zero, or by changing the value in the Line Register to some unused PLC Message number.

13. **Why do PLC Messages not clear when the ESC key is pressed?**
    The panel locks out all key presses for 3 seconds after a PLC Message is displayed in order to ensure the operator has a chance to read the message. Pressing **ESC** 3 seconds after the PLC Message is displayed will display the local message screen.

14. **Do the EZText Panels support discrete addresses?**
    No, the EZText Panels do not support discrete addresses. All addressing for the EZText Panels must be in Word format.

15. How do I insert a PLC Message?
In order to insert a PLC Message, there must be a gap in the message numbers. For example, I have PLC Message #1 and PLC Message #3 programmed. If I click on PLC Message #3 and click the INSERT A PLC MESSAGE button, PLC Message #2 will be inserted between PLC Messages 1 and 3.

16. Can I renumber PLC Messages?
Yes, you can renumber PLC Messages; however, when changing a message number to a higher message number, all unused lower message numbers will be sent as "blank" messages when the project is transferred to the panel. Blank messages will count towards the maximum number of allowed messages in a project (256).

17. Can you copy and paste messages?
Yes, you can copy and paste messages. Currently, however, you can copy or paste only one message at a time.

18. It is hard to read the display on my panel. It's too bright. Is there a way to adjust the contrast?
Yes, to adjust the contrast on the display, simply place the panel into Setup Mode. While in Setup Mode you can use the up and down arrow keys to adjust the contrast.

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