

**EZ 12 Series**<sup>®</sup>

# Getting Started Guide



# Getting Started

## EZ12 & EZTouch Editor 2.0

## EZ12 Getting Started

<b>Revision History</b>		
<b>Issue</b>	<b>Date</b>	<b>Description of changes</b>
First Edition	May - 2018	Original

## **WARNING!**

Thank you for purchasing American made automation products from EZAutomation. We want to ensure your new automation equipment works well for your application and also operates safely. Hence we have created this manual so anyone who installs the equipment should read this manual to ensure proper installation and setup.

To minimize the risk of potential safety problems, you should follow all applicable local and national codes that regulate the installation and operation of your equipment. Please note these codes vary from state to state and usually change with time.

Programmable control devices such as EZ12 HMIs are not designed, manufactured or intended for use as on-line control equipment in hazardous environments requiring fail-safe performance, in which the failure of the product could lead directly to death, personal injury, or severe physical or environmental damage. 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.

The diagrams and examples in this user manual are included for illustrative purposes only. We do not assume responsibility or liability for your product design, installation or operation. If you have any questions concerning the installation or operation of this equipment, please call us at 61-2-9482 4000.

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## Introduction EZ12 Panel

The new EZAutomation EZ12 Panel is designed with efficiency and versatility in mind. The new design includes a smaller depth profile and a streamlined design.

The new front of the panel is now one single piece making the design more durable and wash down proof. Further the touch screen has been improved to be pixel level sensitive allowing full use of all the screen for touch objects.



Finally the design has been created with Private Labeling in mind. This includes a simple and easy way to change the EZAutomation Label to your own. Furthermore you can add an on screen private label.

The EZ12 panel also comes with the release of the new EZTouch Editor 2.0 which includes many quality of life improvements as well as user requested functionality. This includes USB firmware upgrade, new Setup Screen features, and on screen calibration options.

## Safety Considerations

Please follow all applicable sections of the National Fire Code, National Electrical Code, and the codes of the National Electrical Manufacturer's Association (NEMA) to ensure maximum safety of the equipment and personnel.

### Plan for Safety

It is an absolute must to follow all applicable sections of:

- The National Fire Code
- The National Electrical Code (NEC)
- The National Electrical Manufacturer's Association (NEMA) codes.

Local regulatory and government offices usually provide excellent help to determine which codes and standards are necessary for safe installation and operation. Please note these codes may change from time to time, so it is the responsibility of the user to keep up to date.

### Safety Techniques

Safety is the most important element of a proper system installation. Adhering to these safety considerations ensures the safety of yourself and others, as well as the condition of your equipment. We recommend reviewing the following safety considerations:

#### 1) *Disconnecting Main Power*

The main power switch should be easily accessible to the operators and maintenance personnel. It is important to make sure that all other sources of power, including pneumatic and hydraulic, are de-energized before starting the work on a machine or process controlled by a PLC.

#### 2) *Safety Circuits*

Most of the machines are installed with safety circuits, like Limit switches, Emergency stop push buttons, and Interlocks. These circuits should always be hard-wired directly to the PLC. These devices must be wired in series so that when any one device opens, the PLC is automatically de-energized. This removes power to the machine. These circuits should not be altered in any case, since serious injury or machine damage could result.

#### 3) *Fail-Safe Operation*

Our products are not fault-tolerant and are not designed or intended for use as on-line control equipment in hazardous environments requiring fail-safe performance, such as in operation of nuclear facilities, aircraft navigation or communication systems, air traffic control, direct life-support machines, weapons systems, clutch control systems on presses, in which the failure of the product could lead directly to death, personal injury or severe physical or environmental damage. External fail safe and/or redundant components are required to make your control system Fail-safe.

## Environmental Specifications

The following table lists the environmental specifications that generally apply to the EZ12 HMI.

Parameter	Ratings
Operating Temperature	0 to 55°C (32 to 131° F)
Storage Temperature	-25 to 65°C (-13 to 149° F)
Humidity	10 to 95% Relative Humidity, Non-condensing
Vibration Resistance	5 to 55Hz 2G for 2 hours in the X, Y and Z axes
Shock Resistance	10G for under 12ms in the X, Y and Z axes
Electrical Noise (ESD Immunity)	NEMA ICS 2-230 showering arc ANSI C37.90a-1974 SWC Level C Chattering Relay Test
Atmospheric Conditions	Non-corrosive gases

### Agency Approvals

Your application may require agency approval. EZ12 HMI's agency approvals are:

- UL (Underwriter's Laboratories, Inc)
- CUL (Canadian Underwriter's Laboratories, Inc)
- CE (EU Certification)

### Installation Considerations

Our products have been designed and tested for operation in the most demanding industrial environments. Modern solid-state industrial controls are complex electronic equipment that operate at low levels of voltage and current, co-existing with components that operate at much higher levels of power. The difference in operating power characteristics between the high and low power control devices creates the possibility of unwanted signals being generated, thus causing interference. The interference, which is a by-product of electrical noise, is not present at all times. However, if it appears at random and for brief periods of time, it can cause disruptions and errors in the operation of a control system.

Enhancement of a system's noise level immunity and its tolerance to other environmental hazards can be accomplished by following proper system installation guidelines. The recommendations are of a general nature and constitute good industrial installation practice.

### General Environmental Considerations

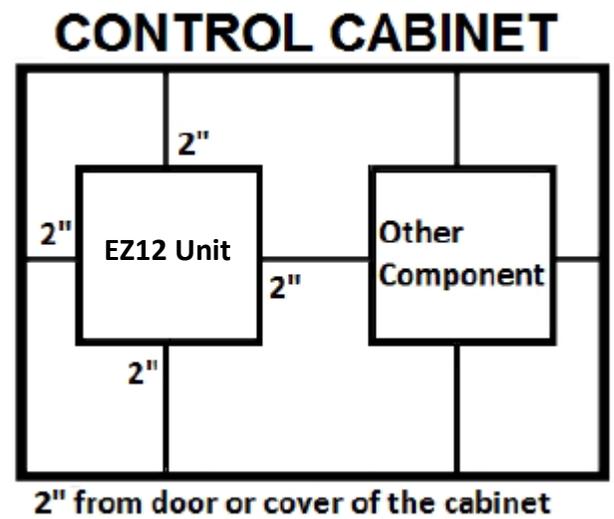
Avoid installing the EZ12 unit in areas where the following conditions may exist:

- Environmental temperatures above or below those specified for the EZ12 unit
- Prolonged exposure to humidity and liquids which may be sprayed or splashed on the equipment
- Dusty environments where airborne particles may accumulate on equipment causing reduction of heat dissipation and reduction in effective electrical spacing between components
- Areas with excessive vibration
- Areas with high-radiated electrical noise, such as near fields of transmitting antennas and areas in close proximity of arc welding stations

### Physical Layout in a Control Cabinet

When possible, cabinets housing electronic equipment should be designed with provisions for natural or forced ventilation to facilitate heat dissipation. Observe the following rules for cabinet installation:

- Heat generating equipment (power supplies and other heat inducing components) should be installed toward the top of the cabinet. The lower space in the cabinet is cooler than the top area.
- Install heat-sensitive components in the lower section.
- Provide enough space between components to allow a free flow of air for better heat dissipation.
- Provide the maximum possible physical separation between solid state and electromechanical controls. If possible, the electromechanical controls (motors, starters, solenoids, etc.) should be housed separately or at the farthest point when enclosed within the cabinet.



We recommend that the unit has a minimum clear space of 2" on all sides for adequate ventilation as shown in the image on the right.

### Electrical Considerations

This section is designed to provide you with a very basic understanding of electrical noise and how to keep it away from CPUs. Industrial plants have a number of generators of electrical noise that are sometimes also referred to as Radio Frequency Interference (RFI). Anytime an inductive load like a motor, motor starter, or solenoid is turned off, it generates a burst of excess energy that has to flow back to ground, just like electrical energy from a lightning storm has to flow back to Earth. RFI is short bursts of electrical energy at very high frequencies. Other sources include RF Welders or Radio Transmitters.

## Effect of RFI on Electronic Automation Equipment

Electronic controls use faster and faster CPUs today. These CPUs are also operating at 2.5V to 5VDC logic level power supply. RFI, if allowed to enter the CPU inside, is a killer of logic. A CPU under this environment loses its brain and behaves erratically. A smart industrial-grade CPU like the unit's card engine, when faced with RFI, halts its operation instead of giving false outputs.

### Types of RFI

RFI enters electronic controls in two ways: radiated RFI or conducted RFI. For most practical purposes, electronic devices, unless sitting right next to a powerful RFI transmitter, will not be affected by noise because air space severely attenuates such interference. On the other hand, conducted RFI travels over conductive surfaces such as power supply wires, electrical wiring of field devices, and worst of all; improper ground planes.

Equipment cabinets usually incorporate one or two doors and/or hinged cabinet panels. Relying on door hinges and swinging panels for a good metallic bond between hinged parts and the main body of the cabinet does not insure adequate grounding. Instead, the use of ground straps is recommended. It is vital for the reliable operation of any electronic device to have any of its metallic surfaces well-grounded to Earth. This not only provides for safe operation, it will also drain out any conducted RFI to Earth, away from the CPU's signal ground.

## Shielding from RFI

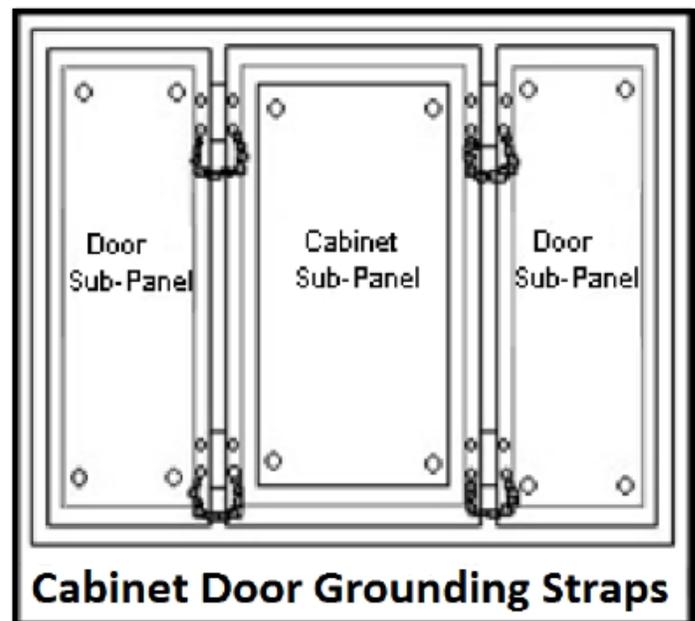
### Shielded Cables

Power cables, I/O cables or wiring, and communication cables should all be separate so that they do not couple the conducted RFI on any of these wires/cables. Another path for RFI into the PLC is through its RS232 port. Hence, the cables to this port must be shielded properly.

### Equipment Cabinets

As mentioned, equipment cabinets typically incorporate one or two doors and/or hinged cabinet panels. In addition, sub-panels may be utilized on those electronic controls and electromechanical items that are mounted. The goal is to create a medium for mounting the equipment and ensure grounding of the control's chassis to it. However, the door hinges and swinging panels by themselves are not enough to ensure adequate grounding.

Similarly, the equipment enclosures are generally either painted or anodized. Mounting of painted or anodized enclosures to like surfaces also does not ensure good metallic contact between the equipment chassis and cabinet. It is imperative that the equipment chassis are grounded such as through the use of grounding straps as illustrated.

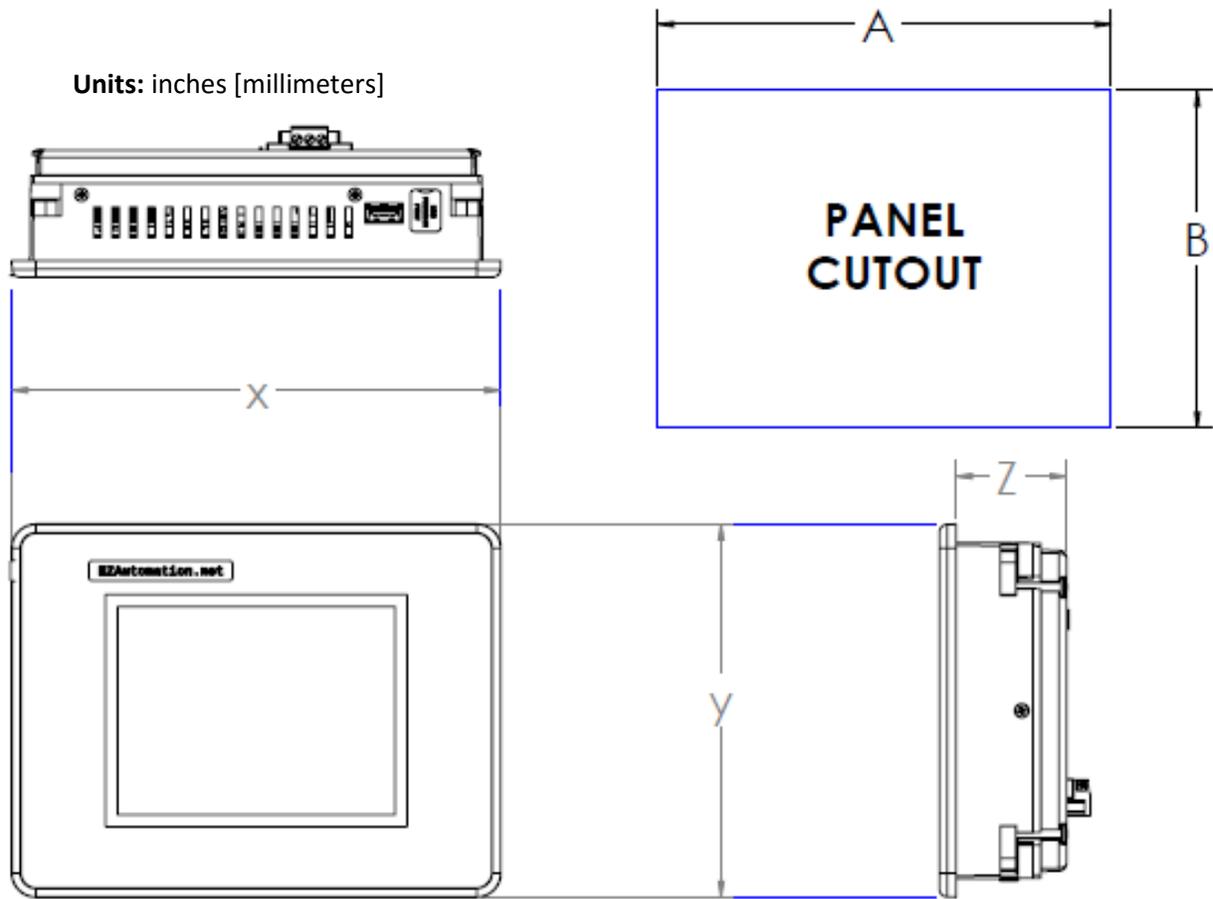


## Cabinet Wiring

The wiring of the EZ12 unit to the “field” outside the cabinet must be by design. The wiring cannot be random in order to get the various points of the cabinet and the “field” electrically connected. Below are some general rules that apply in most situations:

- Provide a separate power source to electronic controls and keep this power bus away from any I/O power.
- The cabinet should be wired with a safety ground (the main safety ground wire gauge is determined by the cabinet's total current consumption) and in accordance with all electrical code requirements.
- Once the cabinet doors, stationary sub-panels and swing-out sub-panels have been “strapped to the main cabinet, it is not necessary to run safety ground wires from the equipment chassis terminals to the main safety ground connection.
- The safety ground terminal of each component can, and should be, connected with the shortest wire possible, to the cabinet or sub-panel frame.
- Plan the wiring routing. Keep all switched power in separate ducts and if there is AC and DC power being switched, keep the wiring of each branch separate from all wires and cables carrying low level signals.
- Keep all three phase power outside of the cabinet, but if it becomes necessary, keep the runs as short as possible and maintain the maximum possible distance between the three phase bus and all other wiring.
- Primary power leads to the control equipment (Base power terminals) should be made with a two wire twisted cable with approximately 12 turns per foot. The length of these cables should be kept to a minimum, and to the greatest extent possible, such cable runs should be kept separate from other wiring.

EZ12 Dimensions



## EZ12 PANEL DIMENSIONS

UNIT SIZE	X	Y	Z
6"	8.05 [204.50]	6.15 [156.20]	2.10 [53.34]
7"	8.05 [204.50]	6.15 [156.20]	1.82 [46.23]
8"	10.90 [276.76]	8.75 [222.25]	1.87 [47.60]
10"	13.59 [345.06]	10.62 [269.90]	1.82 [46.23]

## PANEL CUTOUT DIMENSIONS

UNIT SIZE	A	B	DEPTH
6"	7.47 [189.73]	5.57 [141.48]	3.60 [91.44]
7"	7.47 [189.73]	5.57 [141.48]	3.32 [84.33]
8"	9.17 [232.92]	7.04 [178.82]	3.38 [85.68]
10"	11.87 [301.50]	8.90 [226.00]	3.32 [84.28]

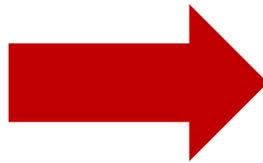
## EZ12 Mounting

All EZ12 panels have a new innovative mounting design. This design allows the unit to not need any external mounting components. The mounting brackets and screws are already included in the unit. Also the unit is designed to be very easy and simple to mount. No more trying to figure out which way to attach DIN clips and no more looking for screws and nuts. This design has also been used in all sizes of EZ12 units to make the design consistent and making mounting simple and easy no matter which size panel you have.

**NOTE:** The maximum torque force that should be applied is 2 ½ to 3 inch-pounds.

Mounting directions:

1. When looking at the back of the unit please look at the screws in the corners of the unit. These screws are screwed into the flip out din brackets (retainers) for the panel.
2. Unscrew the screws and you can flip out the din brackets. The 6" and 7" units have 4 (1 in each corner), the 8" has 5 (1 in each corner and 1 at the top midpoint), and the 10" unit has 6 (1 in each corner and 1 at the midpoint at top/bottom).
3. Then use the screws and the din brackets to mount the panel. The maximum torque force that should be applied is 2 ½ to 3 inch-pounds.



6"/7" Inch

8" Inch

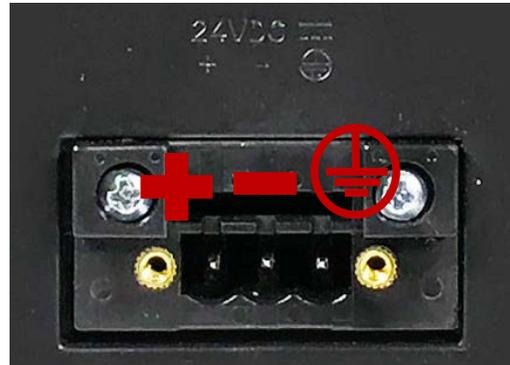
10" Inch



## EZ12 Ports and Indicators

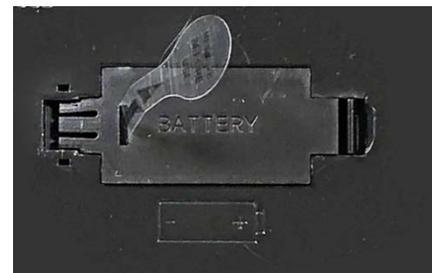
### Unit Power

Connect the power input wires into the HMI's power terminals. Supply 24VDC nominal (20-30VDC) power to the system. If the unit does not power up correctly, remove power from the system and check all the wiring. In addition, see the Indicator Light section below for troubleshooting.

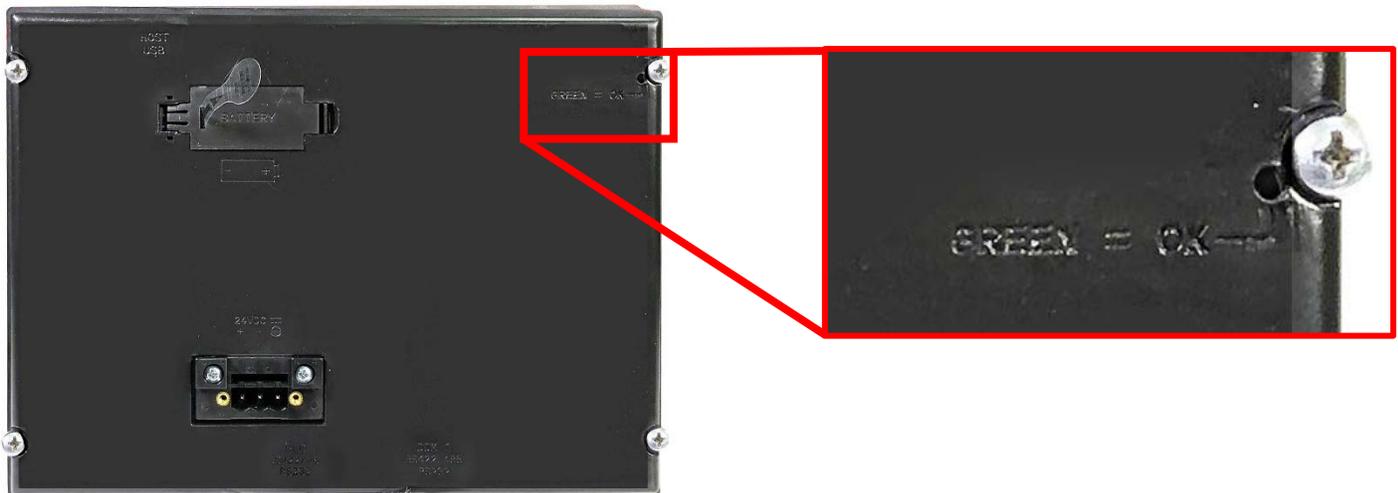


### Battery

The EZ12 uses battery to retain retentive tags and clock over a power cycle. The battery will not work till the plastic battery tab is removed. For replacement please use 3.6 V ½ AA batteries. Recommended to replace batteries every year.

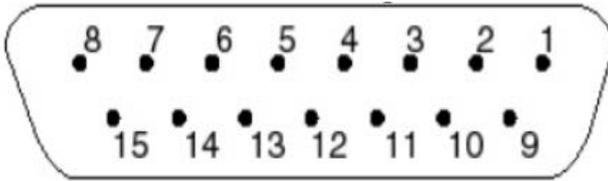


### Status LED



LED Behavior	Status Description	Suggested Response
Flashes Red, then continuously Green	Normal Operation	Proceed to use unit
Continuously Red	Unit Failure	Return unit to factory for service
Does Not Light	No Power	Check or Replace 24 VDC Power Supply - if condition continues return unit to factory for service

**PLC Port**

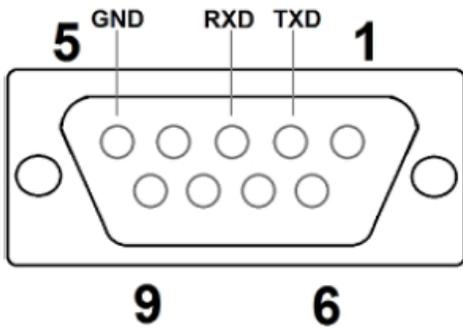


This is the RS-232C, RS-422A or RS-485A female 15-pin D-Sub Connector to connect to other PLCs. Most PLCs connect to the 15-pin D-Sub with a cable specific to the PLC type.

Pin Number	Connection
1	Chassis GND
2	PLC TXD (RS-232)
3	PLC RXD (RS-232)
4	+5 V (100 Ω)
5	Logic GND
6	LE
7	PLC CTS (RS-232)
8	PLC RTS (RS-232)

Pin Number	Connection
9	RXD+ (RS-422)
10	RXD- (RS-422)
11	TXD+ (RS-422)
12	RXD- (RS-422)
13	Terminating Resistor (Connect to pin 9)
14	NC
15	NC

**COM1 Port**

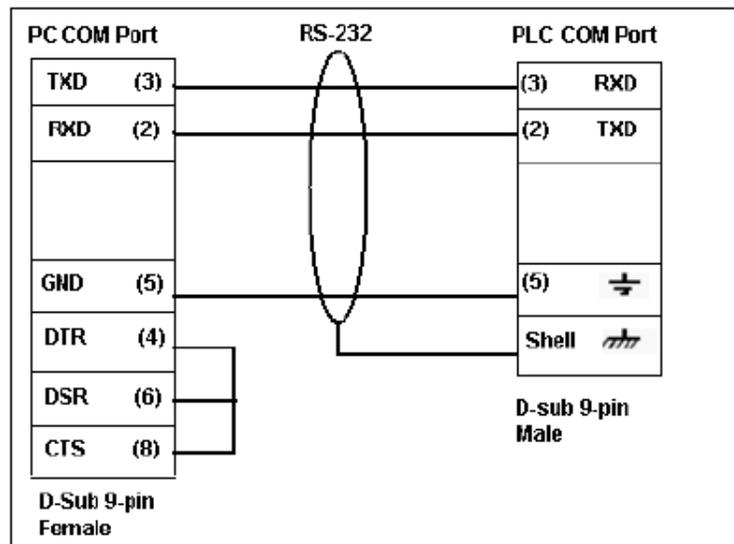


The EZ12 Series has a built-in serial port (COM1 PORT) located on the 9-pin D-Sub connector. COM1 PORT is an RS-232C port which requires an appropriate RS-232C cable (P/N: EZ-PGMCBL) for programming the unit through a PC. It serves as the default programming port on the EZ12 Series. Since COM1 has fixed communication parameters, you can always connect the programming software to the PLC through the port without needing to make different configuration changes. In addition, this connection can be utilized to update firmware when needed.

**PGMCBL: Programming Cable Wiring**



**CAUTION!** Keep the signal reference GND wire well protected from external noise by using shielded cable.



**Ethernet Port**



There is an Ethernet port available on the EZ12 Series. This port enables users to add/update programming through an Ethernet connection. It allows for both PC and PLC simultaneous communications. It can also be used for Internet access and email alerts.

**Micro SD slot**



A Micro SD slot is available to allow for additional storage or data transfer. Insert a Micro SD into the slot and it will load automatically. When finished, push against the Micro SD card to eject it from the unit.

Note: Please you cannot use Micro SD and USB drive to log data simultaneously.

**USB Ports**

EZ12 Series HMIs come equipped with two USB ports. The port on the left is for program upload through a USB A to USB B programming cable.

**Note:** If a power cycle occurs while the USB programming cable is connected, the cable will need unplugged and then replugged in to reestablish a connection.

The Host USB port (on the right) can connect to a USB Flash drive for program upload by simply using our EZ Editor Software to create a USB Loader file (.hmi). It also allows the user to upgrade firmware (.mme), enter the Setup menu (.set), and calibrate the HMI (.cal) if need be. This process benefits system integrators and OEMs by permitting them to upgrade panels on site without the need to connect to a computer or programming software. Please see our EZTouch Editor Software Help for detailed instructions on this process. In addition, the Host USB can be utilized for data logging purposes in combination with our AVG Remote File Manager Utility.

## EZ12 USB Features

The EZ12 Series HMI has been upgraded to include many new USB features. Since we listen to our customer requests, certain features which were available in our software and hardware has been improved and some new features has been added.

**Note: Recommended USB size is 4 GB and maximum size that can be used is 8GB. Format is FAT32.**

**USB Firmware Upgrade** – All EZ12 panels will allow users to upgrade the firmware using a USB flash drive. To do so, you will take the normal firmware and convert it to a USB firmware file (.mme). For more directions please see the Firmware Upgrade Section.

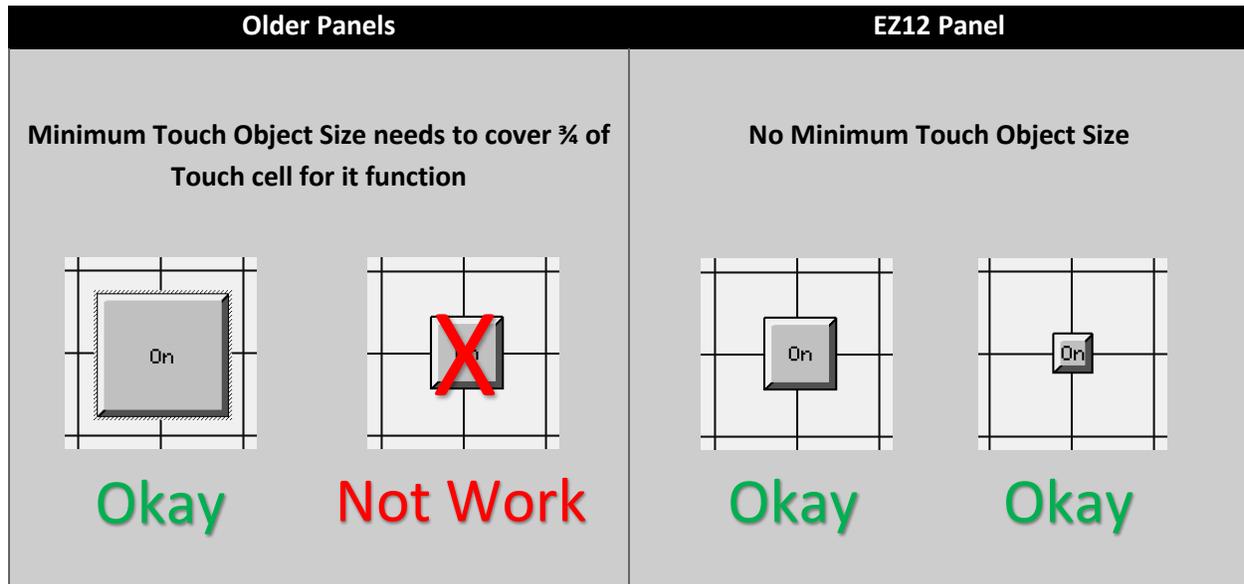
**USB Calibration** – All EZ12 panels allow users to calibrate the panel from the Setup Menu in the EZ12 Touch Panel. Also in case the calibration is such that you cannot access the Setup menu, you can use a calibration file on USB (.cal) to initiate calibration on any panel. For more directions please see the Calibration Section.

**USB Setup Menu Access** – All EZ12 panels now allow users to disable access to the Setup Menu. If the Setup Menu is disabled, then the user can use a setup USB file (.set) to go to the Setup Menu if need be. This feature is outlined more in the Setup Menu Section.

**USB Project Load** – As previous panels, all EZ12 panels allow users to load or transfer a project using USB (.hmi). This feature allows users to have multiple project files on the USB flash drive and select a particular file which should be loaded onto the panel. For more information please see the Project File Load Section.

## EZ12 Analog Resistive Touch Pixel Level Accuracy

All EZ12 Series HMIs have been developed with pixel level accuracy. This means that there is no need for touch cells anymore. All objects no matter the size or position can be pressed and used.



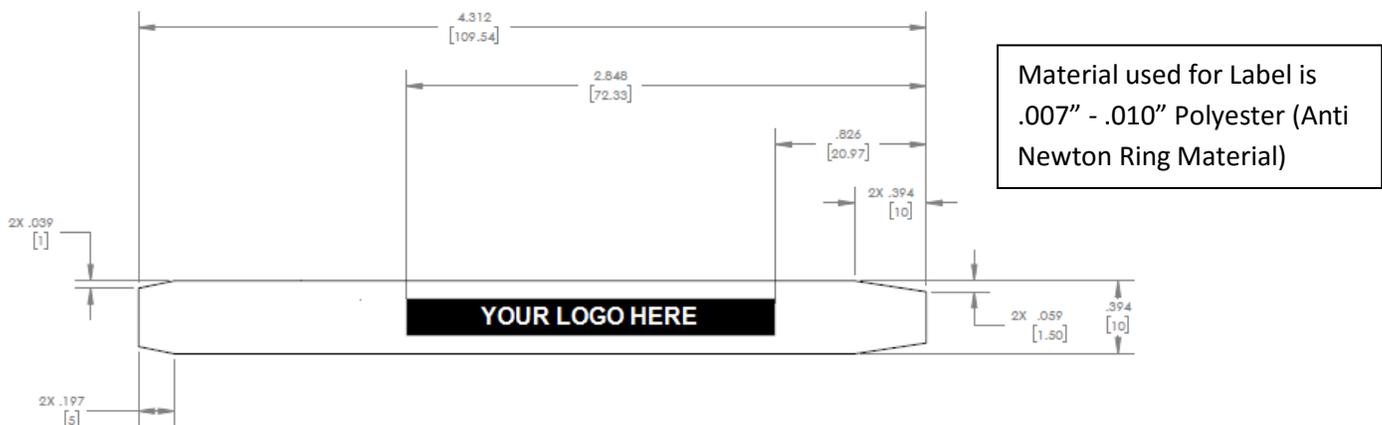
Note: The EZTouch Editor still includes a Guiding Grid (only on PC) and Snap to Grid option to allow for easier object alignment. The only difference is that you can now change the Grid Size and know that there is no position where an object will not work. Furthermore, we have added Scales to help with positioning.

## EZ12 Private Labeling

The EZ12 Panels have built in methods of private labeling panels. These options include both a Private Label Power Up Screen and Logo Label. You can do one or both, to find out how to use these features please see directions below.

### Logo Label Insert

All EZ12 Panels have an EZAutomation Logo inserted when shipped. Customers can replace this logo by making their own. Below are the dimensions and materials needed to print your own label. Also directions on how to remove and insert labels are below.



Removal – Remove the insulation (if needed), then use a small tool such as jeweler screwdriver and pull tab away from housing.



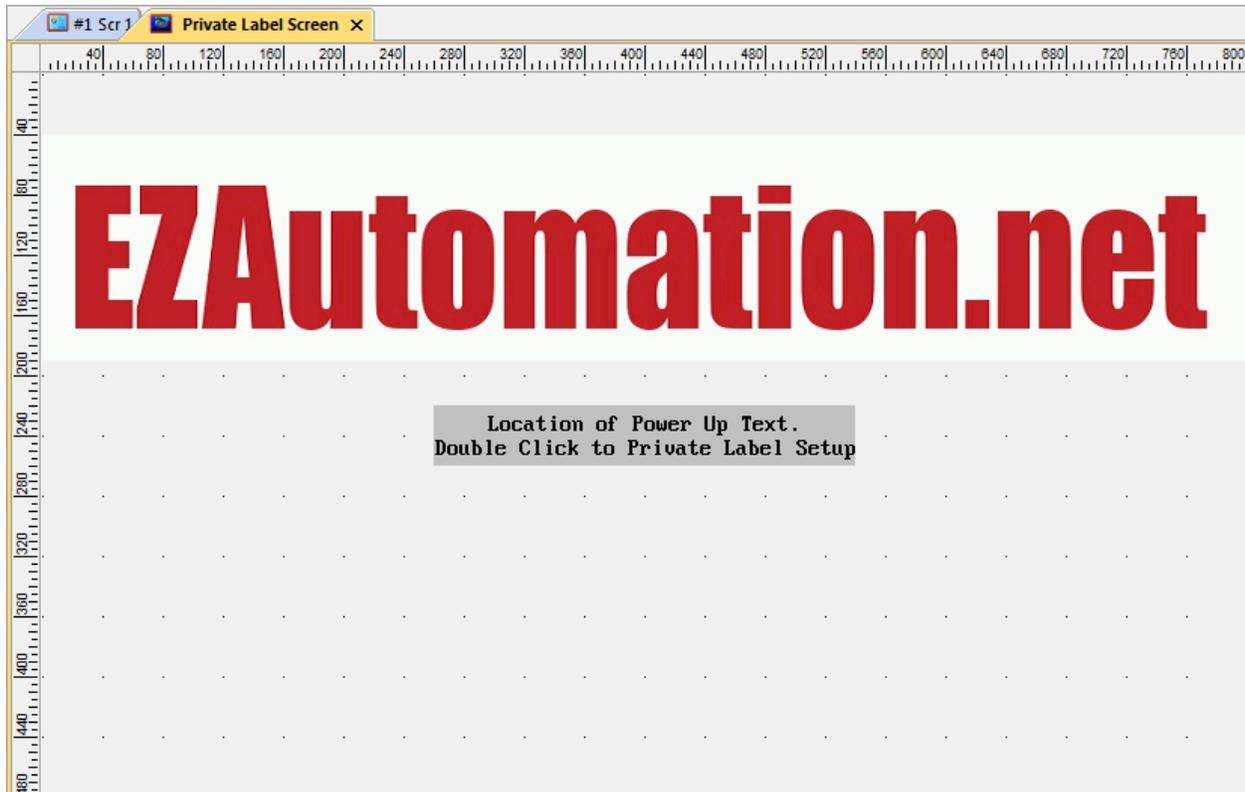
Installation – Insert your own label into slot, see above for needed dimensions. Then lock tab into place.



## Private Label Screen

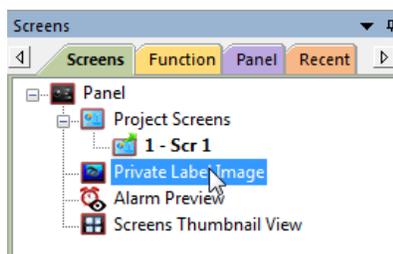
The EZ12 panels support Private Label Images that are displayed upon panel startup. The startup process is the time when the EZTouch Panel displays the Panel Part Number, Panel IP, and Panel MAC address.

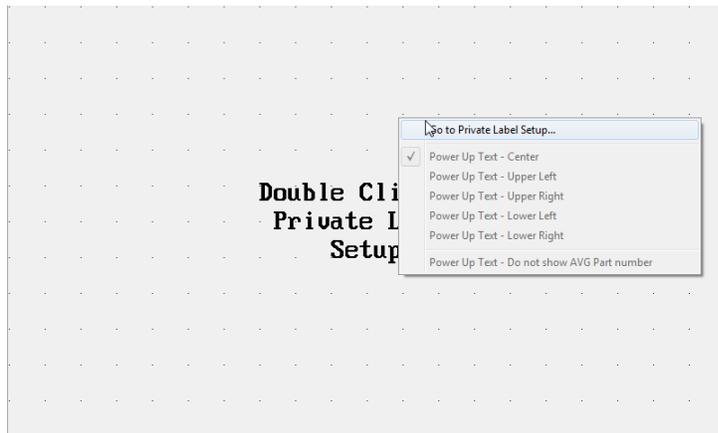
The Private Label Image can be positioned anywhere you like. Also the Power Up Message Text can be moved to certain locations: Center, Upper Left, Upper Right, Lower Left, and Lower Right. To Add Private Label Image please see below.



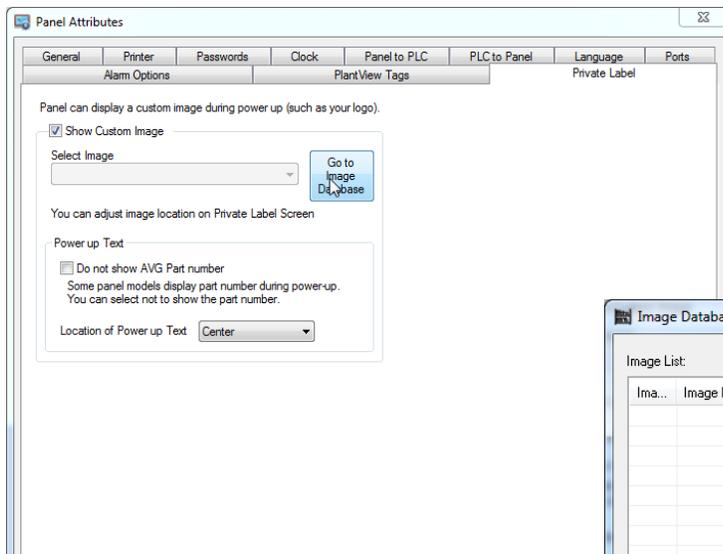
To modify a private label image you can double click it or right click anywhere in the Private Label Screen. Below are instructions on how to add a private label image (splash screen) from the main screen of a project.

1. In the main screen of an open project. In the project screens list double click on the Private Label Image.



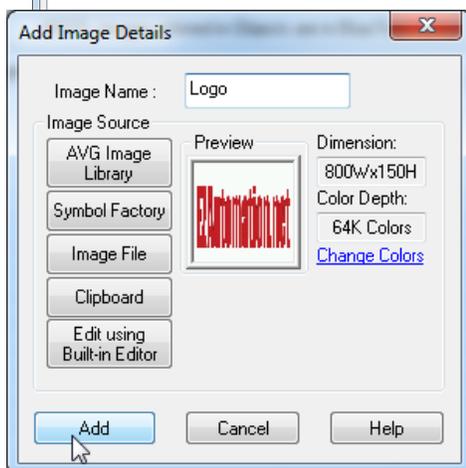
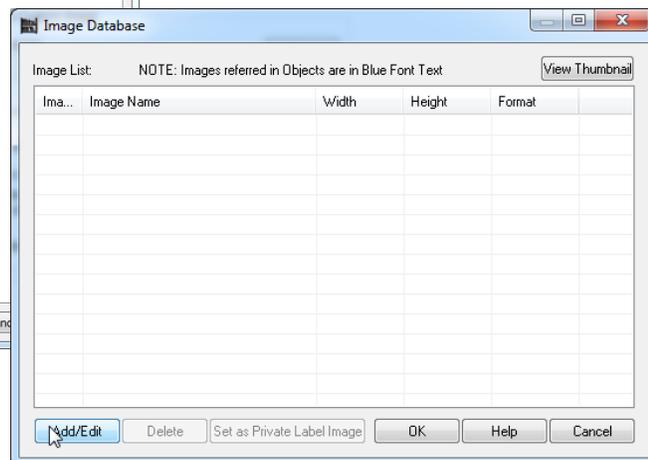


2. Once in the Private Label Image screen double click on the text that says double click. You can also right click and then click on Go to Private Label Setup. You can also enter this setup through the Panel Attributes Menu.



3. In the Panel Attributes you will have to Enable Show Custom Image. Then click the Go to Image Database

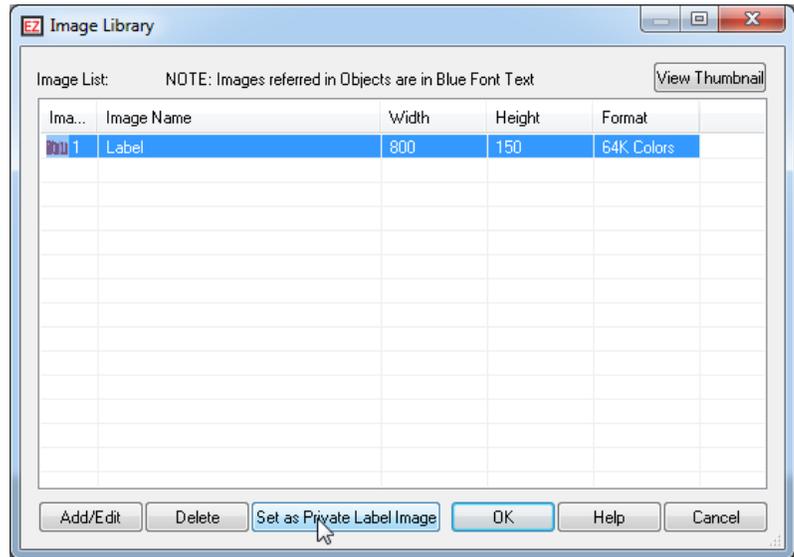
4. In the Image Database you can hit Add / Edit to add your image to the Database. If you have already added an image you can skip this step.



5. In the Add Image Details you can select an image from the two provided libraries (AVG Image Database, Symbol Factory) or you can select an image from your computer files. We also allow copied images from clipboard to be used. Once an image has been selected you can edit in with our Editor.

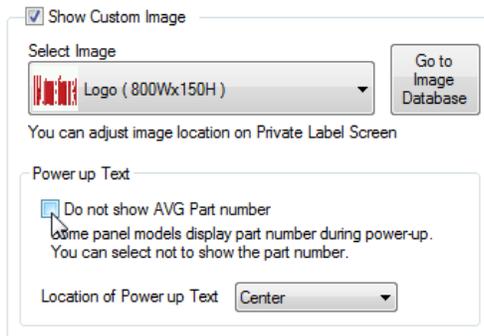
6. Once the image is selected enter an Image Name. Then push the Add button. You can continue adding more images if you like. Otherwise click the Cancel to exit the Add Image Details dialog box.

7. In the Image Database select your image and then click the Set as Private Label Image.

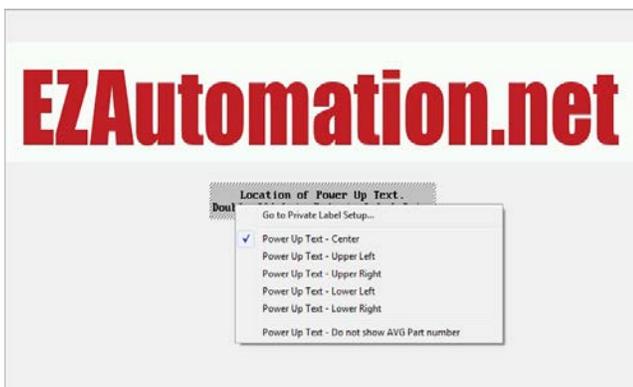


8. The selected Image will appear in the Selected Image Option. If more than 1 Image exist in the library the drop down can be used to change the Private Label Image.

9. You also have the option to change the position of the Power up Text as well as disable the seeing the EZAutomation Part Number upon power up of the unit. Once done click OK.



10. Now the image will appear on the Private Label Image. You can at this point move the image around if it is not the same size as the screen (max size images will fill the entire screen). You can also use the right click menu to move the Location of Power Up Message Text to different spot.



## EZ12 Drivers Supported

The following is a list of current drivers supported by the EZ12 Series units. However, we are always updating PLC compatibility; visit our web site at [http://www.ezautomation.net/com-drivers\\_pg1.htm](http://www.ezautomation.net/com-drivers_pg1.htm) for the latest information.

PLC Manufacturer	Serial Drivers	Ethernet Drivers
<b>AVG/EZAutomation</b>	EZPLC EZRack PLC	EZPLC TCP/IP EZRack TCP/IP
<b>Allen Bradley</b>	DH485/AIC/AIC+ DF1 Half Duplex DF1 Full Duplex	EtherNet/IP DF1 over Ethernet Micro800 Ethernet
<b>KOYO (AutomationDirect)</b>	Modbus (Koyo addressing) Modbus RTU Direct NET ADC K-Sequence Do More Serial Productivity	Modbus TCP/IP ECOM Ethernet Do More Ethernet Productivity Ethernet
<b>Modicon</b>	Modbus RTU Modbus Uni-Telway	Modbus TCP/IP
<b>Mitsubishi</b>	Computer Link Mitsubishi FX	
<b>Omron</b>	Host link adapter	
<b>GE</b>	GE SNP-X	GE SRTP
<b>Siemens</b>	S7	Siemens ISO Ethernet
<b>Siemens/TI</b>	Series 5x5	
<b>All Motion</b>	EZStepper	
<b>Animatics</b>	Smart Motor	
<b>Applied Motion</b>	SCL	
<b>Aromat</b>	Mewtocol COM	
<b>Baldor</b>	Host Comms2	
<b>Bristol Babcock</b>	BSAP	
<b>CTC Binary</b>	CTC Binary	
<b>IDEC</b>	Computer Link	
<b>Keyence</b>	CV 5000	
<b>Yaskawa</b>	Memobus Native Memobus RTU	

## EZ12 Access Setup Menu

The EZ12 Setup Menu has been expanded to include new features which make your life easier when working with your panel. Now that the Setup menu has been updated, you can do the following things in the menu: calibrate HMI, disable setup menu, test touchscreen, test color display, setup/change time and time zone, change port configuration, change data log option, and disable USB.

### Access Setup Menu

The setup menu now has 3 ways of being accessed. The main method is On Screen access, but note that this method can be disabled from the Setup Menu. If it is disabled you will need to use the other 2 methods.

#### On Screen Setup Menu Access:

1. To access the setup menu press and hold left upper corner (40x40) of screen for 5 seconds.



2. If the Setup Menu is not disabled, you will see the screen above. Select the language to be used in the setup menu.

**Note:** If setup screen is disabled then it can still be accessed. To access Setup Screen when it is disabled you will have to power cycle the unit. Then during the initializing portion where Part Number, IP Address, and MAC address are visible you will press the upper left corner. You will then release and then press again for 2 seconds and release. The setup screen will appear after the panel finishes initializing.

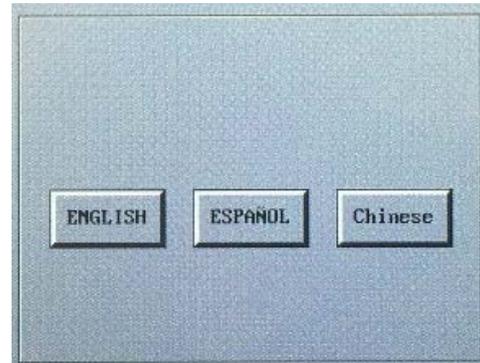
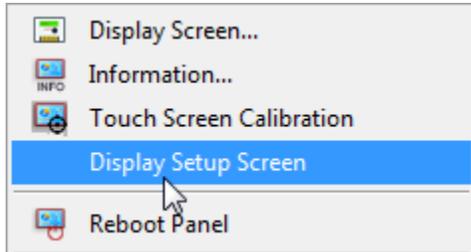
**Disabled Setup Screen Steps:** Press the upper left corner (40x40 pixels), then release. Then press again and hold for at least 2 seconds. Then release (initializing screen appears for total of 8 seconds).

Revision		Memory	
Firmware	1.0.140	Used	1349728
Boot	G.2	Free	1009568
Hardware	D	Total	2359296
		Flash	0
Clock		ID 03:16:c4:08:14:0f:1d	
11:23:22		Contrast	n/a
29-MAY-18		Part #	EZ12-TBC-E
Clock	Assign Ports	LogToUSB (NowSD)	Disable USB
Setup is 5s delay	Touchpad TestOrCal	Display Test	Exit

3. After the language is selected you will see the following screen. This is the main Setup Screen from which all the options can be accessed. Also it is the screen which will tell you some troubleshooting information such as Firmware revision.

**EZTouch Editor Setup Screen Access:**

1. To access the setup menu, connect to panel from the PC. Open the EZTouch Editor and then in the Panel Menu select Display Setup Screen.



2. Now even if the Setup menu screen is disabled, you will see the screen above on the panel. Select the language to be used in the setup menu.

Revision		Memory	
Firmware	1.0.140	Used	1349728
Boot	G.2	Free	1009568
Hardware	D	Total	2359296
		Flash	0
Clock		ID 03:16:c4:08:14:0f:1d	
11:23:22		Contrast	n/a
29-MAY-18		Part #	EZ12-TBC-E
Clock	Assign Ports	LogToUSB (NowSD)	Disable USB
Setup is 5s delay	Touchpad TestOrCal	Display Test	Exit

3. After the language is selected you will see the following screen. This is the main Setup Screen from which all the options can be accessed. Also it is the screen which will tell you some troubleshooting information such as Firmware revision.

**USB Setup Screen Access:**

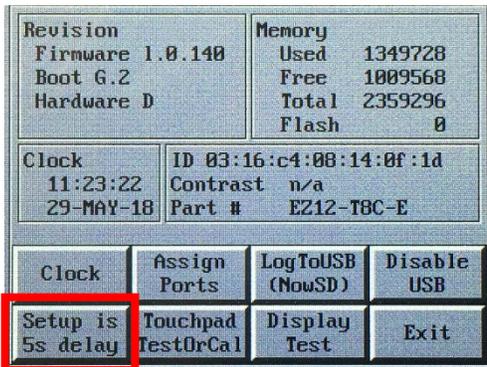
You can use any file with the extension .set on a USB to have the panel enter the setup screen (even if it is disabled). For example an empty text doc which extension is changed to ".set"(ex: Setup\_menu.set). Once USB is put in panel the panel will immediately enter the setup menu language screen (if it does not then you might need to power cycle the panel). Please remove the USB before exiting the Setup Menu otherwise the menu will reappear almost immediately.

Note: The USB Setup menu access will not work if the USB is disabled.

## Setup Menu Functionality

Below is outlined all the Setup Menu functionality. The EZ12 new functionality is highlighted at the beginning.

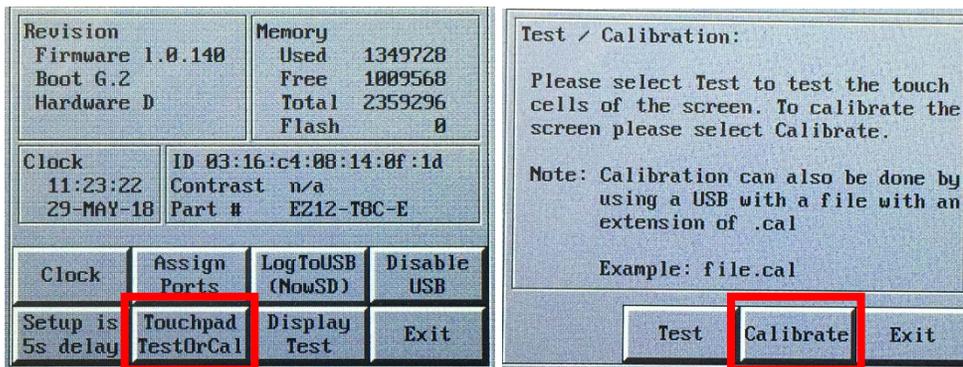
### EZ12 Disable Setup Menu



The setup menu can be disabled by pressing the Setup is 5s delay. The button will change to say Setup is Disabled, which when pressed again will re-enable the Setup Menu.

Note: This disable is only for the On Screen Access to the setup menu, you can still use USB or EZTouch Editor Menu to access the setup menu if even if it is disabled.

### EZ12 Screen Calibration

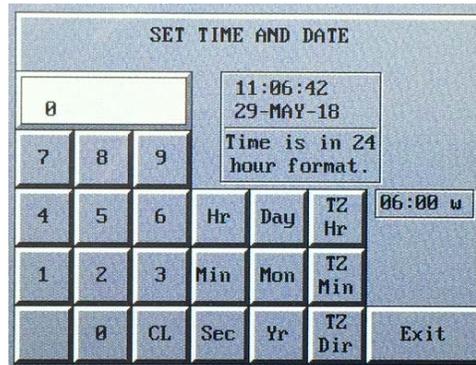
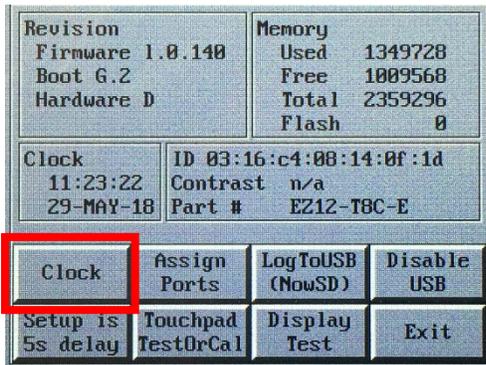


You can now calibrate all EZ12 panels using the Setup Screen calibrate option. Just press the Touchpad TestOrCal button then press Calibrate.

The Calibration setup will then start, follow those directions and the panel will afterwards restart.

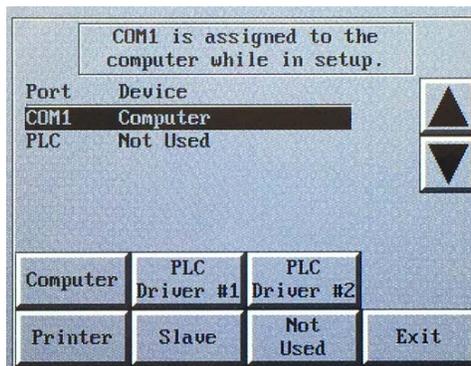
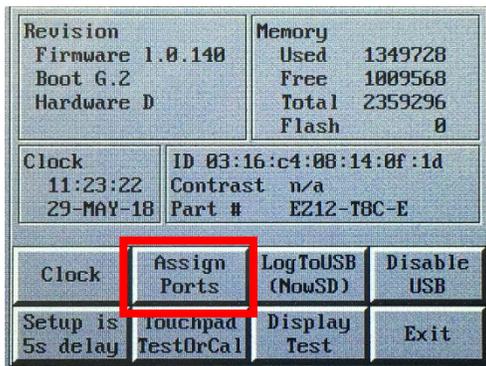
Note: If nothing is pressed for 15-20 seconds during calibration mode then previous calibration is used and panel will restart. Therefore if you accidentally enter calibration mode you only need to wait and panel will exit by itself.

**Setup/Change Time (Time Zone)**



In the Setup Screen you can set the time and date. You can also setup the Time Zone if you are using NTP (you will need to use this for Daylight Savings). NTP Server setup is discussed in the NTP Setup Section. The new EZTouch Editor 2.0 now includes a NTP setup options in the Ethernet Setup Menu.

**Port Configuration**



In the setup menu you can configure which serial port is used for what communication option. The COM1 is the 9 pin serial port and the PLC port is the 15 pin serial port. Below are the communications options you can use:

- Computer – For communicating to the PC (default 9 pin)
- PLC Driver #1 – PLC driver for PLC 1 in project (default 15 pin)
- PLC Driver #2 – PLC driver for PLC 1 in project
- Printer – Serial printer option (used with alarms and reports)
- Slave – ASCII Marquee Slave (used with alarms and reports)
- Not Used – Port is disabled (If set for both ports then no communication will happen)

**Data Log USB vs SD Option**



Pressing the Log ToUSB will switch Data Logging from SD to USB. After pressing it will say NowUSB. Note: the 7" and 8" EZ12 do not support USB data logging.

**Disable USB**



You can at any point disable all UBS functionality (includes USB A to B cable transfer). This can be done if you want to speed up your panel.

## Setup Menu Troubleshoot

### Test Touchscreen

Revision		Memory	
Firmware 1.0.140		Used	1349728
Boot G.2		Free	1009568
Hardware D		Total	2359296
		Flash	0
Clock		ID 03:16:c4:08:14:0f:1d	
11:23:22		Contrast	n/a
29-MAY-18		Part #	EZ12-T8C-E
Clock	Assign Ports	LogToUSB (NowSD)	Disable USB
Setup is 5s delay	Touchpad TestOrCal	Display Test	Exit

Test / Calibration:		
Please select Test to test the touch cells of the screen. To calibrate the screen please select Calibrate.		
Note: Calibration can also be done by using a USB with a file with an extension of .cal		
Example: file.cal		
Test	Calibrate	Exit

When troubleshooting you can test the touch screen in the Setup menu. Just press the Touchpad TestOrCal button then press Test. This will bring up a touch screen test screen where every location becomes a button for touch testing.

### Test Color Display

Revision		Memory	
Firmware 1.0.140		Used	1349728
Boot G.2		Free	1009568
Hardware D		Total	2359296
		Flash	0
Clock		ID 03:16:c4:08:14:0f:1d	
11:23:22		Contrast	n/a
29-MAY-18		Part #	EZ12-T8C-E
Clock	Assign Ports	LogToUSB (NowSD)	Disable USB
Setup is 5s delay	Touchpad TestOrCal	Display Test	Exit

You can at any point test that the entire display is working correctly by entering the Setup Screen and then pressing the display test button. This will bring up a screen which will have continues scrolling different color lines (horizontally then vertically).

