



Manual de instalação

EZForecourt & EZForecourt Plus

versão 2.2



Summary

| | | | |
|---|-----------|---|----|
| Introduction | 1 | Monitoring closures, fuelling and logs | 36 |
| Product overview | 2 | Monitoring more than one concentrator | 37 |
| Installing the EZForecourt Usb..... | 3 | Monitoring from several points ... Error! Bookmark not defined. | |
| Installing the device controllers | 4 | Monitoring a concentrator in an external network ... | 38 |
| Installing the client and server applications..... | 5 | Inside the EZForecourt... Error! Bookmark not defined. | |
| Checking the connection..... | 6 | Parando e reiniciando services..... | 40 |
| Upgrading the version..... | 6 | ACCESSION THE INTERNAL DATA OF THE CONCENTRATOR Error! Bookmark not defined. | |
| Installing the EZForecourt Plus | 7 | Eliminating all the system data | 41 |
| Installing the client applications | 8 | Saving the server configuration | 42 |
| Compatibilizing the server's IP address | 9 | Saving the fuelling OF THE concentrator..... | 42 |
| Checking the connection..... | 10 | Emulating the concentrators Error! Bookmark not defined. | |
| Upgrading the version..... | 10 | Installing the components..... | 44 |
| Configuring the system | 11 | Configuring virtual ports | 44 |
| Configuring the ports | 12 | Passo Interface..... Error! Bookmark not defined. | |
| Configuring the fuels..... | 13 | Installing the Interface | 48 |
| Configuring the price of fuels..... | 13 | Configuring the Passo System | 49 |
| Configuring the tanks..... | 14 | Appendix..... Error! Bookmark not defined. | |
| Configuring the EZRemote | 15 | Understanding the panel lights | 50 |
| Configuring the Fuelling Positions..... | 16 | Upgrading the concentrator..... | 51 |
| Configuring the nozzles..... | 19 | Activating the license key..... | 51 |
| Configuring the gas station attendants..... | 20 | Identifying the network..... | 52 |
| Connecting pumps, EZId and tank meters..... | 21 | Using cables to configure the EZForecourt Plus..... | 53 |
| Physically connecting the pumps at the concentrator | 22 | Installing the client applications | 54 |
| Connecting the EZId | 24 | Configuring the date and time for the concentrator Error! Bookmark not defined. | |
| Connecting Gilbarco Pumps | 25 | Finding out the concentrator version..... | 54 |
| Connecting Wayne 3G Pumps..... | 26 | Upgrading the EZForecourt Plus operational system. | 55 |
| Connecting Wayne Duplex II Pumps | 27 | Communication Boards..... | 56 |
| Connecting Aspro Develco and Abl vng pumps..... | 28 | Configuring the serial cables | 56 |
| Connecting Aspro and Galileo (Metroval) vng pumps | 29 | INI files | 57 |
| Connecting Galileo GC-21 Pumps..... | 30 | Auxiliary modules..... | 57 |
| Connecting Current Loop Stratema Pumps..... | 31 | Troubleshooting | 58 |
| Connecting Tokheim Pumps | 32 | Applied electronics..... | 64 |
| Connecting electronic tank meter..... | 33 | Undestanding the multimeter..... | 64 |
| Monitoring pumps, EZId and tanks..... | 34 | | |
| Monitoring the pumps | 35 | | |
| Monitoring the tanks | 36 | | |

Performing tests.....65

Technical specifications..Error! Bookmark not defined.

Introduction

The **EZForecourt USB** and the EZForecourt Plus are pump concentrators that aim to control, recover and make available data from any kind of pump for liquid fuel or VNG and/or tank meters, each unit being able to manage up to 16 physical pumps (32 fuelling positions), by means of current loop physical connections, RS485, Tokheim and Schlumberger.

The **EZForecourt USB** is a client-server device that depends on the connection, via USB, to a specific computer with a 32-bit XP, Vista or Windows 7 system.

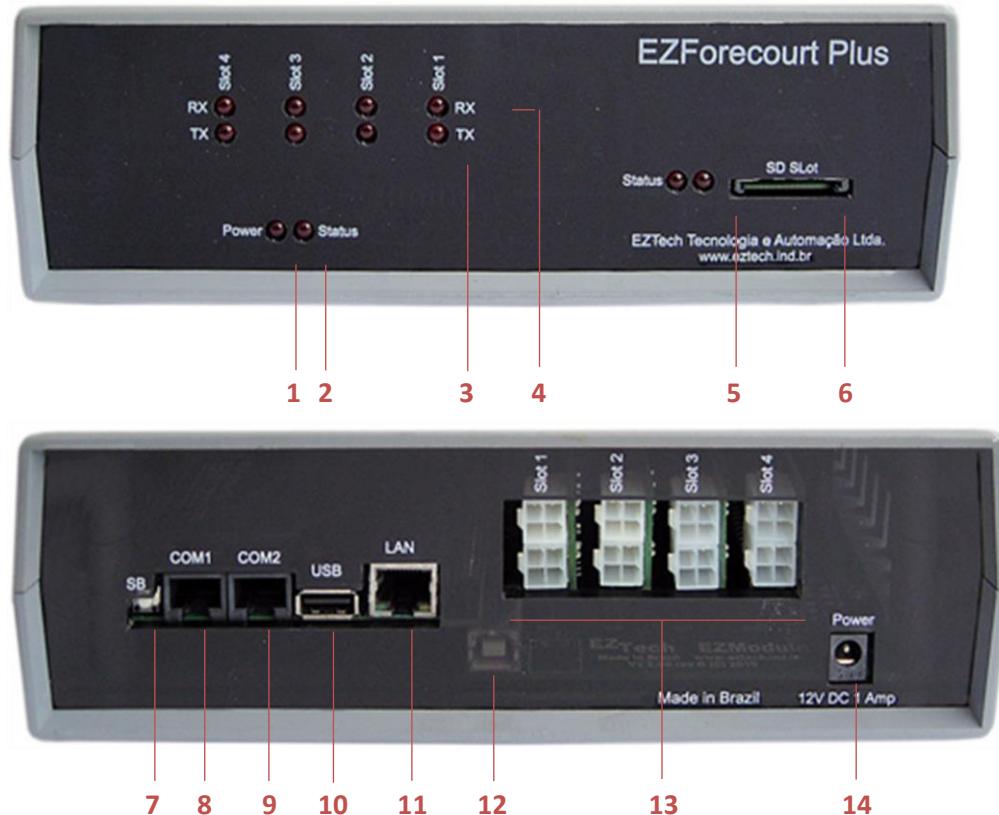
The **EZForecourt Plus** is a network client-server device, which can be connected, via ethernet port, to a hub, router or computer connected to a network.

The **design for the concentrators** is based on the fuelling point (side) and not the physical pump or nozzle. For the EZTech each side is seen as an independent pump, regardless of the number of nozzles.

Through accessory programs that are supplied, you can configure and monitor the pumps and/or tanks, as well as to emulate concentrators from other manufacturers.

This manual aims to instruct new users to install, connect and configure the concentrator, as well as to use the accessory programs. All the instructions consider the use of the Windows XP, up to then the platform used the most in the field.

PRODUCT OVERVIEW



01 Power

02 Activity of the communication component with the pumps.

03 Data traffic sent to the pump

04 Data traffic sent by the pump

05 Activity of the concentrator's operational system. Only for the Plus version.

06 Memory expansion. Only for the Plus version.

07 Serial boot. For putting the concentrator in configuration mode. Only for the Plus version.

08 Serial port RS232 for connecting tank meters and emulators. Only for the Plus version.

09 Additional RS232 serial port for connecting tank meters and emulators. Only for the Plus version.

10 Host USB port for USB devices, including another EZForecourt Plus concentrator. Only for the Plus version.

11 Ethernet port for connecting the concentrator with the local network. Only for the Plus version.

12 Client USB port for connecting with the server computer. Only for the EZForecourt.

13 Slots for connecting the pumps.

14 Equipment power.

Installing the EZForecourt Usb

This chapter brings information for installing the EZForecourt USB. This model being a USB device dependent on software running in a Windows computer, then it is necessary:

- To have a computer that will work as the server for the concentrator, with any 32-bit version of Windows.
- To have a USB cable
- To follow the steps of this chapter for installing the access programs at the concentrator
 1. To install and activate the device controllers (device drivers)
 2. To install client-server applications
 3. To activate the license key
- To follow the steps of [chapter 4](#) for configuring the concentrator in accordance with the gas station configuration
- To follow the steps of [chapter 7](#) for configuring the emulation of other concentrators, if the management system is still not integrated to the EZTech development libraries

1.1 INSTALLING THE DEVICE CONTROLLERS



For the EZForecourt USB to be recognized by the computer where it will be installed, it is necessary to install the drivers of the concentrator with the operational system. To do that, follow the steps below:

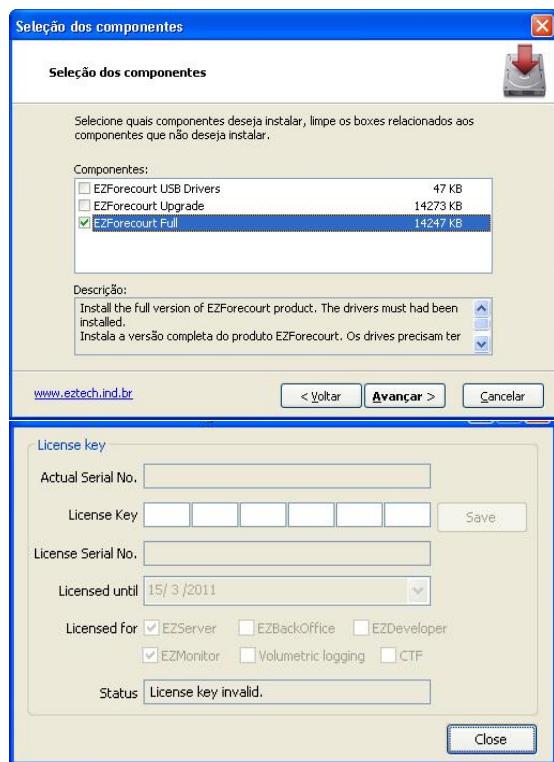
- If the computer is 64 bits, initialize it as a 32¹
- Run the installation program “EZForecourt USB Install 99b99.exe”² with the “EZForecourt USB Drivers” component option.
- Switch on and connect the concentrator to the computer by means of the USB port.
- Access “control panel – add hardware”.
- Select the option “Install from a list or a specific site (advanced)”.
- Click on “next”.
- On the following screen, select “Look for the best driver in these sites” and mark the box “Include this site in the search”
- Inform the site where the recently installed drives are located: “C:\EZForecourt\Driver”.
- Click on “next”.
- The assistant will look for the corresponding files and will conclude the installation upon finding them.
- Click on “end”. From now the EZForecourt USB will be recognized by the computer.

¹ Press F8 during the computer initialization and choose the option “Disable driver signature enforcement” or “Disable virtual driver signature”

² The program is on the installation CD or in the download area in www.EZTech.com.br. Use the proper version.

1.2 INSTALLING THE CLIENT AND SERVER APPLICATIONS

It is necessary to install the programs that allow the product to work. This process has an automated part that creates the necessary structure (folders, icons, items in the programs list), copies all the files and runs the **EZLoader** support module for upgrading the board's firmware; a part with dialogue, corresponding to the **EZLicense** support module, which enables product use by means of inserting a license key. To do that, follow the steps below:



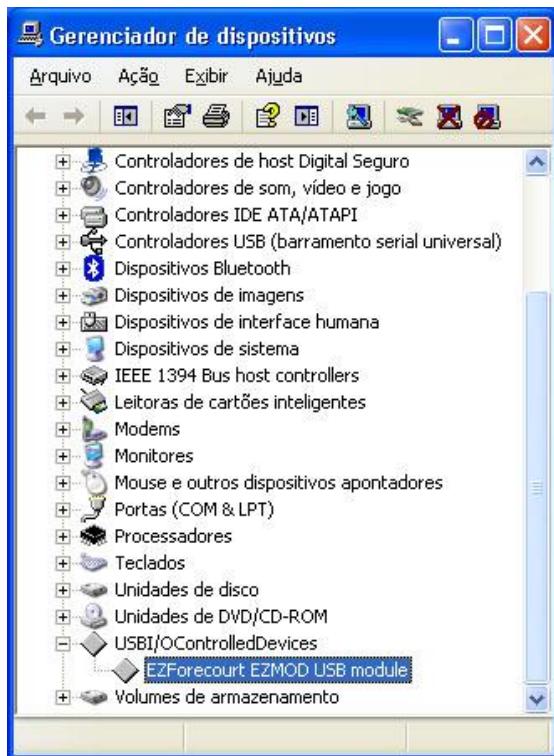
- Certify that the device drivers are installed. See item 1.1.
- Certify that the .Net applications set is installed. Access “control panel – Add/Remove programs” and look for “Microsoft .Net Framework 3.5” in the list of programs.³
- Switch on and connect the concentrator to the computer.
- Run the installation program “EZForecourt USB 99b99.exe” with the “EZForecourt Full” component option.
- On the “License Manager” screen, inform the license key to activate the application⁴.
- Click on “end” when the installation ends.
- Now the EZForecourt USB can be configured and connected to the pumps and tank meters.

³ If it is not installed, download the installation cd installer or from the download area in www.EZTech.com.br

⁴ To obtain the license key, refer to the insert that accompanies the product or call support

1.3 CHECKING THE CONNECTION

After installing the client and server applications it is indicated that the connection between the concentrator and the server computer is tested. To do that, follow the steps below:



- Access the control panel at the option “System” - “Hardware” tab – “Device Manager” button.
- Look for the item “USB I/O Controlled Devices”
- If the connection is active, the item “EZForecourt EZMod USB module” will appear under this item

1.4 UPGRADING THE VERSION

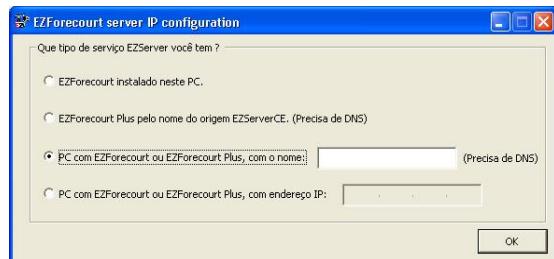
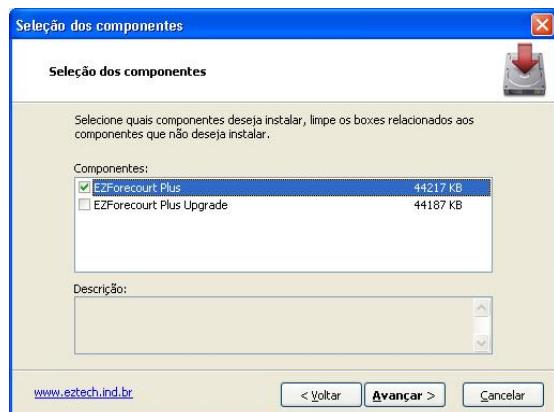
For a first installation, there is no need for upgrading. However, for upgrading a version already installed, follow the steps of item 9.2

Installing the EZForecourt Plus

This chapter brings information for installing the EZForecourt Plus. This model being a physical network device independent of any software running in a Windows ser, then it is necessary:

- To have a local or private network configured
- To have a computer that will serve to install the client's applications
- To have a RJ45-DB9 converter and a DB9-USB for computers that have no serial DB9
- To follow the steps of this chapter for installing the access programs at the concentrator
 1. Install client-server applications
 2. To register an IP for the concentrator, enabling it for the network where it will be installed
 3. To check the connection
- To follow the steps of [chapter 4](#) for configuring the concentrator in accordance with the gas station configuration
- To follow the steps of [chapter 7](#) for configuring the emulation of other concentrators, if the management system is still not integrated to the EZTech

2.1 INSTALLING THE CLIENT APPLICATIONS



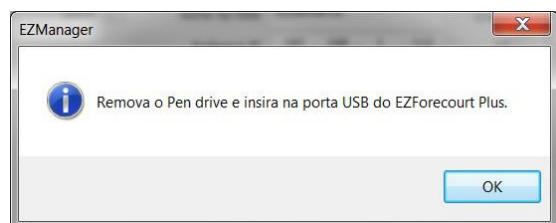
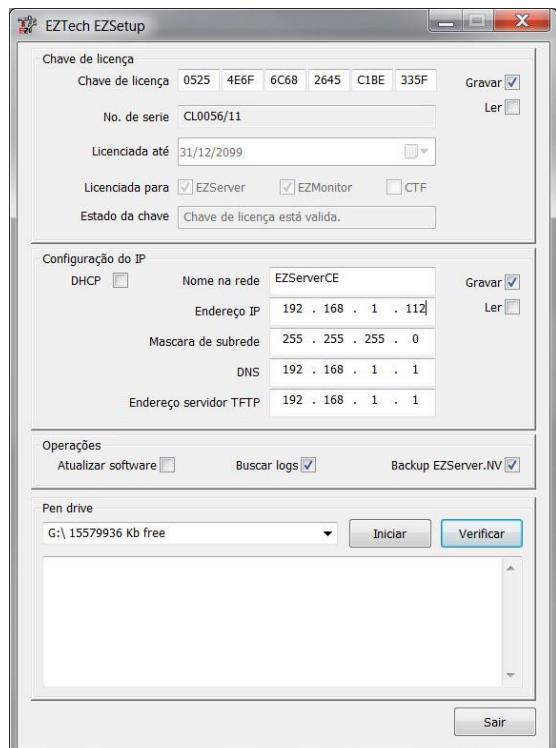
It is necessary to install the programs that allow the product to work. This process has an automated part that creates the necessary structure (folders, icons, items in the programs list), and copies all the files; and a part with dialogue, corresponding to the **EZConfig**, which configures the IP address where the client part must look for the server. To do that, follow the steps below:

- Run the installation program “EZForecourt Plus 99b99.exe” with the “EZForecourt Plus”⁵ component option. Use the correct version.
- On the “Server IP Configuration” screen, inform the IP of the concentrator in the network. If there are two concentrators in the same network or if the DNS is not working, select the last option; otherwise the suggested option marked.

⁵ The digit 9 means any number and not the numeral itself

2.2 COMPATIBILIZING THE SERVER'S IP ADDRESS

For the EZForecourt Plus to be recognized by the network where it will be installed, it is necessary to configure the concentrator in accordance with the architecture of this network. To do that, follow the steps below:



- Identify if the local network is DHCP or fixed IP. If you don't know how, see item 9.4
- Connect a pendrive n the computer where the installation of the client applications was done.
- Run the **EZSetup**⁶ support module
- Fill the configurations of the “IP Configuration” section or activate the “DHCP” option, and activate the “record” option.
- In the pendrive section, a Box will display all the pendrives that were located. Choose where you wish to record and click on the “Start” button.
- The end of the process is indicated by the screen to the side. Click “ok” and remove the pendrive.
- Connect the pendrive in the USB input on the rear part of the concentrator with the same switched on. One of the “status” LED’s to the right will start to blink rapidly. As soon as it starts to blink more slowly, it means that the pendrive is already recorded and can be removed.
- Switch the concentrator off and turn it on again for initializing as the new IP address.

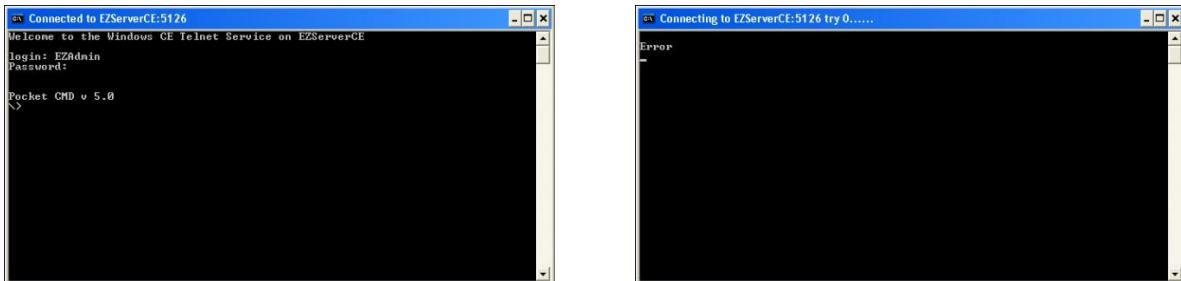
⁶ It can be accessed on the Start Menu – All the programs – Folder EZForecourt Plus

2.3 CHECKING THE CONNECTION

After the compatibilization of the IP addresses, it is indicated the connection between the concentrator and the network is tested. To do that, follow the steps below:

- Connect a network cable between the Lan port of the concentrator and the Ethernet port of the computer or hub.
- Run the **EZTelnet**⁷ support module

If the connection is active, a screen displaying success in the communication will be displayed; otherwise an error message will be displayed.



IN CASE OF ERROR, check if the IP placed in the concentrator is compatible, if there is .Net installed, if the computer network board is configured in a compatible manner and/or if the Lan port lights of the concentrator are on. If the lights are not on, the network cable might not be properly inserted and the computer Ethernet port or hub might be defective.

2.4 UPGRADING THE VERSION

For a first installation, there is no need for upgrading. However, for upgrading a version already installed, follow the steps of item 9.2

⁷ Can be accessed on the Start Menu – All programs – EZForecourt Plus Folder

Configuring the system

This chapter brings information for configuring the communication of the concentrator with the pumps by means of the **EZConfig** support module.

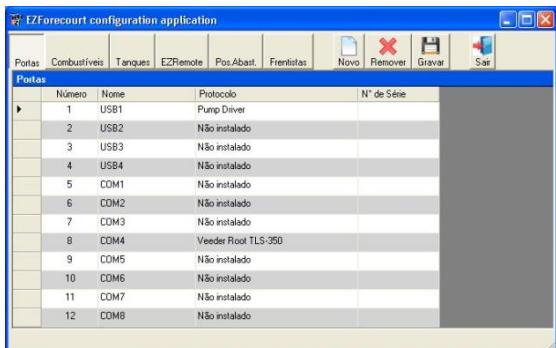
Both the EZForecourt USB and the EZForecourt Plus need to be configured to be able to communicate with the pumps, tanks or other devices.

To do that, registration must be done following the order: communication ports used by tank meters, fuels being used, prices of the fuels, tanks and their fuels, EZRemote (if there is gas station attendant control or wireless communication), fuelling points (each side of the pump), fuelling point nozzles and gas station attendant (if there is EZRemote).

The configurations are practically similar for the two models of the EZForecourt and must be carried out in the sequence proposed here in the manual. Any difference will be duly pointed out when existing.

The editing and browsing must be done in a manner that is similar in all the configurations. There is an upper toolbar with buttons that lead to each type of. Inside each configuration, use the button “New” to include an item, “Remove” to delete a selected item and “Exit” to exit the application. To change an item, all you have to do is to click directly on the desired field and edit directly.

3.1 CONFIGURING THE PORTS



Click on the button “Ports” in the toolbar. All the ports that were configured and/or suggested will be displayed. To register a piece of equipment by IP, click on the button “New”. To remove an item, click on the line referent to the item and then in the button “Remove”. To change an item, click directly on the information desired.

It is necessary that the concentrator knows which ports the gas station equipment use for communicating. This is done associating to each port a communication protocol compatible with the kind of equipment.

USB Ports: the USB1 port refers to the main concentrator. The other ones are for extra concentrators to use. In the EZForecourt USB, they refer to the computer’s USB ports. In the EZForecourt Plus, they refer to the external USB at the rear of the concentrator for chain connections.⁸

COM Portas: are used for connection with tank meters. In the EZForecourt USB the ones existing in the computer where the EZServer is installed can be configured. In the EZForecourt Plus, only the ports COM1 and COM2 at the rear of the equipment are available.

Communication by IP: There are meters that are connected by means of an IP address. To activate this type of equipment, click on the button “New”, click in the field “Name” to include an IP and in the field “Protocol” to choose the type of corresponding protocol.

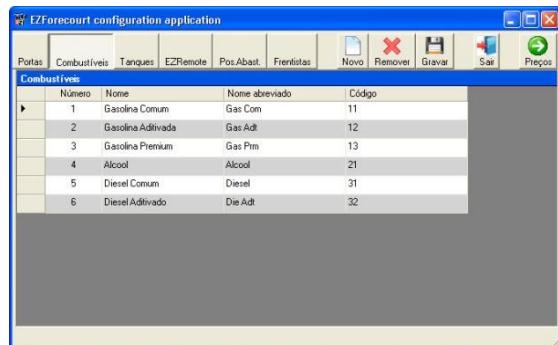
DESCRIPTION OF THE FIELDS

- Number: sequential identification generated by the system, editable however
- Name: Type of port
- Protocol: Type of protocol that will be used for communication in the port.
- Serial#: Serial number of the extra concentrator where the port is

For ports USB1 to USB4, the protocol can only be “pump driver” or “Not installed”. For the COM ports, any other equipment than these.

⁸ Each concentrator supports up to 16 physical pumps (32 fuelling points) and there can only be up to 4 concentrators per gas station. On having more than one concentrator, the serial number of each driver must be registered in the “Serial #” column.

3.2 CONFIGURING THE FUELS

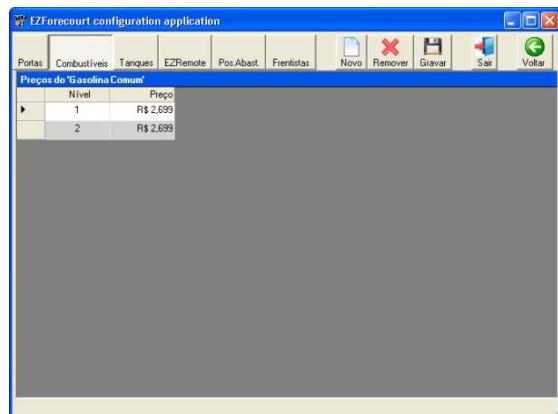


Click on the button “Fuels” in toolbar. All the fuels that were registered will be displayed. To register a new item, click on the button “New”. To remove an item, click on the line referent to the item and then in the button “Remove”. To change an item, click directly on the information desired.

DESCRIPTION OF THE FIELDS

- Number: sequential identification generated by the system, editable however
- Name: Description of the fuel
- Abbreviated name: Initials for the fuel
- Code: Identification of the fuel given by the user

3.3 CONFIGURING THE PRICE OF FUELS

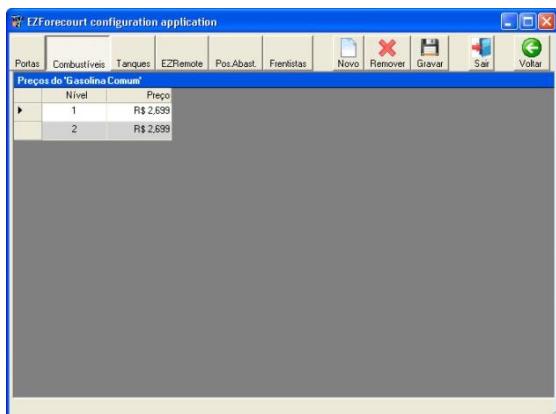


Click on the button “Fuels” in the toolbar and just after on the button “Prices” on the same bar. All the prices that were configured will be displayed. To register a new item, click on the button “New”. To remove an item, click on the line referent to the item and then in the button “Remove”. To change an item, click directly on the information desired.

DESCRIPTION OF THE FIELDS

Each fuel can have up to 8 price levels. A level that indicates the basic price of the fuel and other for the specific sale conditions, such as, for instance, invoiced, credit or, further, some type of discount.

3.4 CONFIGURING THE TANKS



respective tanks.

Click on the button “Tanks” in the toolbar. All the tanks that were configured will be displayed. To register a new item, click on the button “New”. To remove an item, click on the line referent to the item and then in the button “Remove”. To change an item, click directly on the information desired.

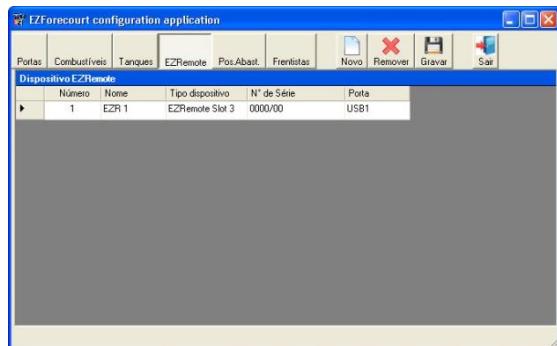
In this stage, ports with associated meters and fuels already registered must be associated to their

To know how to configure a tank meter, see [item 4.10](#)

DESCRIPTION OF THE FIELDS

- Number: sequential identification generated by the system, editable however
- Name: Description of the Tank
- Fuel: Fuel present in the tank
- Capacity: Volume in the tank
- Diameter: Size of the tank
- Type : Manual (does not use probe) or Metered (uses probe)
- Meter port: Port that was associated to the meter protocol in the ports configuration screen. For the case of meters connected by IP, select the IP referent to the meter in question.
- Probe: Identification of the meter port that is being used by the probe

3.5 CONFIGURING THE EZREMOTE



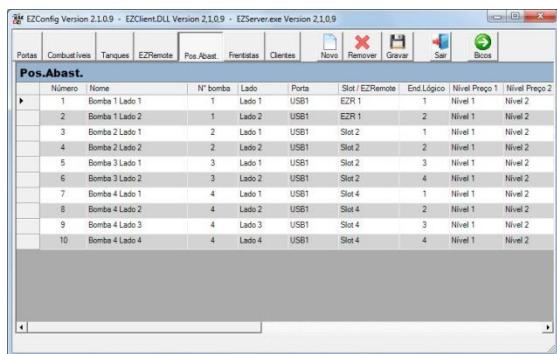
Click on the button “EZRemote” in the toolbar. All the modules that were configured will be displayed. To register a new item, click on the button “New”. To remove an item, click on the line referent to the item and then in the button “Remove”. To change an item, click directly on the information desired.

DESCRIPTION OF THE FIELDS

- Number: sequential identification generated by the system, editable however
- Name: Alphanumeric identification of the EZRemote. It will appear on the pumps configuration screen.
- Type of device: Localization of the remote devices.
 - EZRemote wireless – for use of wireless device. It is addressed automatically for the slot 4.
 - EZRemote Slot n – for use of cabled device (where “n” varies from 1 to 4). Indicates in which slot of the concentrator the EZRemote is connected
- Serial number: Serial number that is present in the product’s structure
- Port: always USB1

OBS: Later, the association must be made to a pump on the menu “Fuel.Pos.”, in the item “Slot/EZRemote”

3.6 CONFIGURING THE FUELING POSITIONS



Click on the button “Pumps” in the toolbar. All the pumps that were configured will be displayed. To register a new item, click on the button “New”. To remove an item, click on the line referent to the item and then in the button “Remove”. To change an item, click directly on the information desired.

PRELIMINARY CONCEPTS

Logical Address x Pump #: What actually identifies a pump for any automation system is not the external number attached to the same (Pump #) and rather the number assigned to each side of the panel keyboard, which here is called Logical Address.

Fueling point (PA): Is each side of the pump defined by a logical address. Each physical pump is entered in the register as many times as are the active, regardless of the number of nozzles. Thus we have that:

- pump with nozzles on both sides is entered twice, once for each side.
- pump with nozzles only on one side is entered only once.
- pump with 4 independent nozzles is entered 4 times, as if it had 4 sides
- VNG dispensers, although they have only one address, they have to be entered as if they had two

Example: One pump with two active sides must be entered, must be entered as follows:

| Nome | Nº Pump | Side | End. Lógico |
|---------------|---------|------|-------------|
| Pump 1 Side 1 | 1 | 1 | 11 |
| Pump 1 Side 2 | 1 | 2 | 12 |

☞ Logical Addresses are numbers defined by the gás station management and do not necessarily obey a sequential registering.

Nozzles: must be entered after registering each PA and not after entering the entire pump.

Connection of the pumps: Each communication board of the concentrator only admits pumps of the same protocol (and not the manufacturer). For instance, on a same board there can be Aspro Metroval and Galileo Matroval pumps. Although they are from different manufacturers, they use the same protocol.

Price, volume and value masks: They must be entered in accordance with what is on the pump, otherwise it generates error in the closures and even intermittence in the communication.

DESCRIPTION OF THE FIELDS

THE FIELDS IN BOLD SCRIP ARE ESSENTIAL FOR HAVING COMMUNICATION

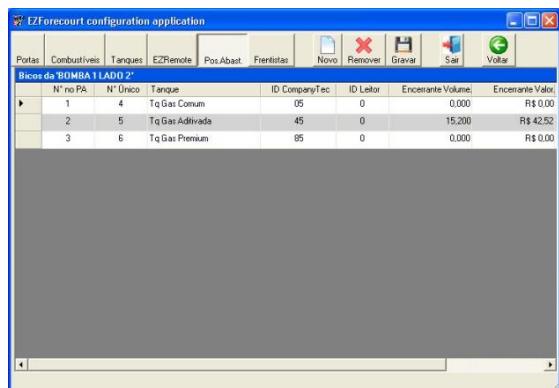
- Number: PA identification (generated by the system, editable however)
- Name: Free description fo the PA
- Pump #: External numerical identification of the pump. It will repeat itself for each PA.
- Side: Identification of the pump face
- Port: Port associated to the “pump driver” pump protocol in the ports list ([item 3.1](#))
- **Slot/EZRemote:** concentrator board where the physical pump is connected or identification of the EZRemote which the pump will be linked to.
- **Logical address:** Sole numeric identification defined in each PA (side) in the pump
- Price Level 1: Main price for the fuel in the PA.⁹
- Price Level 2: Alternate price for the fuel in the PA
- Price format: Price format in the PA. Must be equal to the one configured on the side of the pump.
- Volume format: Volume format in the PA. Must be equal to the one configured on the side of the pump.
- Value format: Value format in the PA. Must be equal to the one configured on the side of the pump.
- **Pump type:** Protocol referent to the type of pump. It can be found in the description of the configuration of each pump, in chapter 5.
- Authorization¹⁰: Form how the fuelling is authorized in the PA. It can be:
 - Disabled – The pump is prevented from working.
 - Manual – The fuelling can only be authorized manually by a remote system.

⁹ The price levels must be previously registered in the fuels price screen. See [item 3.3](#)

¹⁰ To know how the authorization modes are represented by the EZMonitor module, see [item 5.1](#)

- **Automatic** – The fuelling is authorized, however, it remains ending to be sent to the management system until it's released individually and/or the "Memory" option is configured as "Automatic".
- **Monitor** – The fuelling is automatically authorized and released, however it is lost after approximately 1 minute or when a new fuelling is initiated.
- **Gas Station Attendant** – Authorization of the "Automatic" type, however the pump needs to have been initialized with a gas station attendant.
- **Gas Station Attendant RFID** – Authorization of the "Automatic" type with use of EZId for releasing each fuelling.
- **Monitor/Attendant** - Authorization of the "Monitor" type, however the pump needs to have been initialized with a gas station attendant.
- **Plate / Card** – Fuelling authorized by information from the vehicle's plate or use of a card with barcode.
- **No automation** – The pump is automatically released, the fuelling is not registered, however it only works if the concentrator is switched on.
- **Memory:** The information for the fuelling that was finalized must be transferred to a payment pendency pile (memory) to release the pump. This memory can be configured as:
 - **Disabled** – The pile is disabled and the pump is only authorized if the fuelling is paid for.
 - **Manual** – Any fuelling that was finalized needs to be manually sent to the pile by an operator so that a new fuelling can be initiated.
 - **Automatic** – Any fuelling that was finalized is automatically sent to the pile when a new fuelling is initiated.
- **Pre-Paid:** Indicates if the pump admits pre-paid fuelling in the PA
- **Pre-Authos:** Indicates if the pump allows pre-authorized fuelling in the PA

3.7 CONFIGURING THE NOZZLES



Click on the button “Nozzles” in the toolbar. All the nozzles that were configured will be displayed. To register a new item, click on the button “New”. To remove an item, click on the line referent to the item and then in the button “Remove”. To change an item, click directly on the information desired.

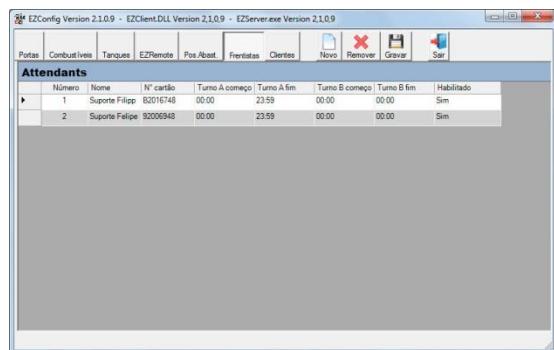
DESCRIPTION OF THE FIELDS

- Number: sequential identification generated by the system, editable however
- Physical number: Sole numeric identification of the nozzle
- Tank: Tank to which the nozzle is associated
- Reader ID: Identification of the fidelity card reader ¹¹
- Volume of closure: total of volume sold on the nozzle since the pump was installed or zeroed
- Value of closure: total of the value sold on the nozzle since the pump was installed or zeroed
- Price 1: Price on the nozzle. If it is zero, the price associated to the fuel is adopted.
- Price 2: Alternative price on the nozzle. If it is zero, the price associated to the fuel is adopted.

TO AVOID LOSING THE VALUE OF CLOSURES: A mask can be defined in the closure fields larger than the numeric limit of the pump protocol, so that the concentrator continues accumulating the values beyond this limit.

¹¹ Solution still not implemented up to the moment of printing this manual

3.8 CONFIGURING THE GAS STATION ATTENDANTS



Click on the button “gas station attendants” in the toolbar. All the gas station attendants that were configured will be displayed. To register a new item, click on the button “New”. To remove an item, click on the line referent to the item and then in the button “Remove”. To change an item, click directly on the information desired.

DESCRIPTION OF THE FIELDS

- Number: sequential identification generated by the system, editable however
- Name: Full name of the gas station attendant
- Short name: Nome of the gas station attendant that will be used in the EZMonitor
- Password: Identification for releasing the pump operation
- Tag #: card's identification number

The identification is pre-numbered in the factory. To associate this number to a gas station attendant, all you have to do is to click on the line relative to the gas station attendant and pass the card on the reader.

Connecting pumps, EZId and tank meters

This chapter brings information for connecting the pumps physically at the concentrator.

After installing the backup support programs that allow communication of the EZForecourt with a server computer, or with the network, and to configure the system, it is necessary to connect the pumps, EZIDs and tank meters physically at the concentrator.

For the pumps, the connection is made by means of interface board connectors installed at the concentrator in accordance with the model being used. Up to this moment EZTech, manufactures 3 types of boards compatible with the majority of the manufacturers: Current loop, RS485 and SL/TK (Schlumberger or Tokheim pumps). See the images of the boards in [item 9.10](#).

A concentrator admits up to 4 boards and each board allows up to 4 pumps, then being able to have up to 16 pumps using connections point to point or in series.

For the electronic tank meters, the connection is done by ports COM1 or COM2 of the concentrator (EZForecourt Plus) or serial port of the server computer (EZForecourt USB), using a serial cable configured in accordance with the specifications from each manufacturer.

The information that follows demonstrates how to switch on and configure the pumps, EZId and meters more commonly encountered on the market.

4.1 PHYSICALLY CONNECTING THE PUMPS AT THE CONCENTRATOR

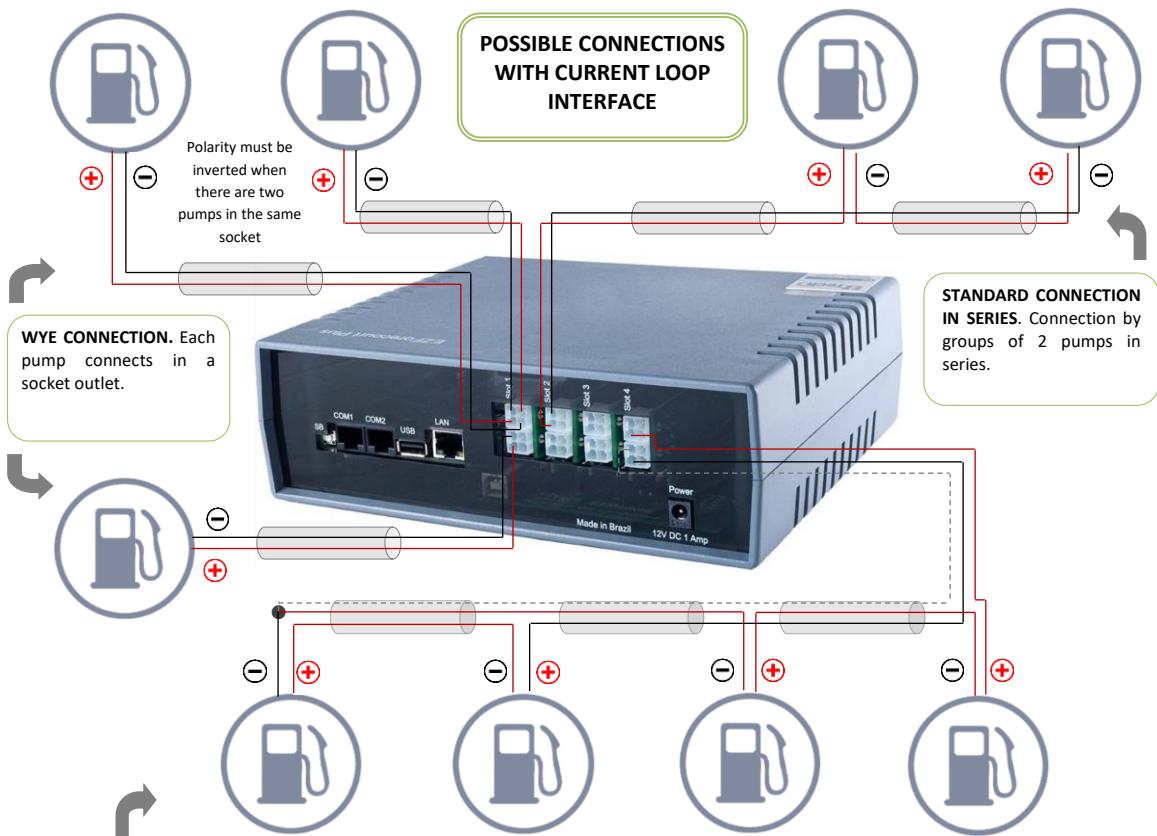
The connection between any EZForecourt and the pumps is made by means of connector cables that were supplied and outlets from the interface boards on the rear part of the concentrator (see item 9.6). Each interface board has 4 outlets (2 connectors). The top part of each outlet is the negative pole and the bottom part the positive.

The most reliable manner of connecting the pumps at the concentrator is to use each outlet for only one pump (point to point / wye connection). However, depending on the interface that was adopted and/or by technical necessity of an installation, it might be necessary to use connections in series (standard or daisy chain) or in parallel. See the possible connections in the diagram below:

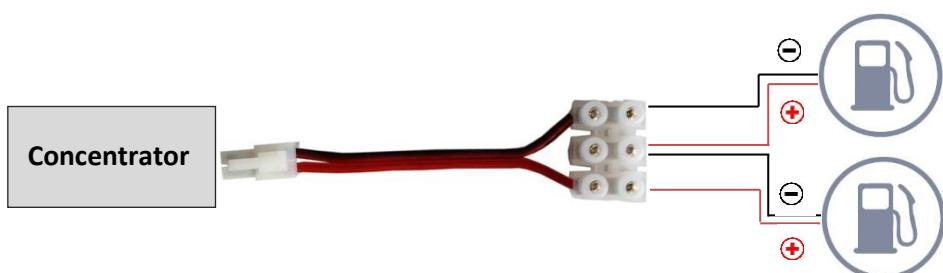


PARALLEL CONNECTION USING THE CONNECTOR PROVIDED





CONNECTION IN SERIES USING THE CONNECTOR PROVIDED



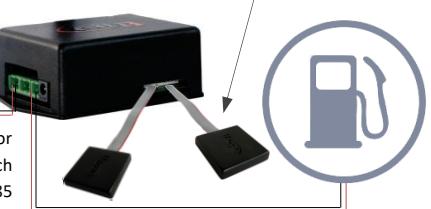
4.2 CONNECTING THE EZID



The readers are connected to the EZRemote by the "Mifare A" and "Mifare B" ports in accordance with the identification in each reader.

The poles on the left of each outlet are the positive ones
2,3v if connected properly

The EZRemote connects to the concentrator by the "Automation CL" connector, which generates current loop signal. That is, a RS485 pump with EZRemote now starts to connect in a loop board at the concentrator



The pump connects to the EZRemote by the Pump CL (current loop) or Pump RS485 connectors on the side of the equipment

- Each EZId connects current loop or RS485 pumps
- The output to the concentrator is always current loop
- The voltage between the EZId and the concentrator must be 2,3v
- Each communication board of the concentrator admits up to 4 EZId's and does not direct connection of pumps when having EZId
- Each EZId must be registered in the EZConfig on the menu "EZRemote" ([Item 3.5](#)) and afterwards associated to each pump in the item "Slot/EZRemote" of the menu "Fuel.Pos." ([Item 3.6](#))
- Wireless EZId can be used on Slot 4

4.3 CONNECTING GILBARCO PUMPS



To establish the pump's communication with the concentrator it necessary to define an address at the pump itself, configure it to operate in automation mode and inform this type of pump the EZConfig support module of the concentrator.

TYPE OF INTERFACE and PROTOCOL IN THE EZCONFIG

Current loop • Gilbarco US

DEFINING THE PUMP ADDRESS

- F1 2222 <enter>
- 12 <enter>
- 1503 <enter>
- 12 <enter>
- <enter> until the number on the desired side appears on the upper left corner of the display
- Pump address with two digits <enter>
- F2 to save the changes

CONFIGURING BETWEEN REMOTE AND MANUAL MODE

- F1 <enter>
- 2222 <enter>
- 2 <enter>
- 1 <enter> for remote mode or 0 <enter> for manual mode
- F2 to save the changes

PUMP WITH ONE NOZZLE

Even in Gilbarco Pumps that present only 1 nozzle, two sides must be configured. The nonexistent side is side 1 as logical address 16. The functional side is side 2 with logical address that is desired.

4.4 CONNECTING WAYNE 3G PUMPS



To establish the pump's communication with the concentrator it necessary to define an address at the pump itself, configure it to operate in automation mode and inform this type of pump the EZConfig support module of the concentrator.

TYPE OF INTERFACE and PROTOCOL IN THE EZCONFIG

Current loop • Wayne US 3G

DEFINING THE PUMP ADDRESS

- Type 1 in the remote control. The message 'PASS 1' will appear in the value display.
- Type 9, 1 ,1, <enter>. The message 'PASS 2' will appear in the value display.
- Type 9, 1, 1, <enter>. The message 'F--' will appear in the price display.
- For side A type 0, 5, <enter>. The message 'F05' will appear in the price display.
- For side B type 0, 6, <enter>. The message 'F06' will appear in the price display.
- Press <enter>, # , n, n, <enter>, <enter>, where 'nn' is the pump address. The message '----' will appear in the value display and 'nn' in the volume display.
- Press <clear>, <clear>, 0, 0, <enter>. The message 'F00' will appear in the price display.
- Press <enter>, #, 3, <enter>, <enter>. The message 'CHANGE' will appear in the value display and 'STORED' in the volume display.

CONFIGURING BETWEEN REMOTE AND MANUAL MODE

- Type 1 in the remote control. The message 'PASS 1' will appear in the value display.
- Type 9, 1, 1, <enter>. The message 'PASS 2' will appear in the value display.
- Type 9, 1, 1, <enter>. The message 'F--' will appear in the price display.
- Type 0, 1, <enter>. The message 'F01' will appear in the price display.
- Press <enter>, #, 1 for remote mode or 2 for manual mode, <enter>, <enter>. The message '----' will appear in the value display and 2 in the volume display.
- Press <clear>, <clear>, 0, 0, <enter>. The message 'F00' will appear in the price display.
- Press <enter>, #, 3, <enter>, <enter>. The message 'CHANGE' will appear in the value display and 'STORED' in the volume display.

4.5 CONNECTING WAYNE DUPLEX II PUMPS



To establish the pump's communication with the concentrator it necessary to define an address at the pump itself, switch it off and on keeping the concentrator switched on and inform this type of pump the EZConfig support module of the concentrator.

TYPE OF INTERFACE and PROTOCOL IN THE EZCONFIG

Current loop • Wayne US

DEFINING THE PUMP ADDRESS

- Turn the positions key (PK) to enter in the logic number programming mode. "0,00" will appear in the display of total and liters.
- Keep the TS key pressed until the price gives place to a number with only two digits, which represents pump's logic number.
- Continue pressing until the unit arrives at the desired number.
- Release the key when the unit is corrected.
- Keep the TS key pressed again until the tens arrive at the desired number.
- Turn the programming key (PK) to memorize the logic number. If any different information appears on the pump display, release the keys and wait for the pump to return to its normal state.

CONFIGURING BETWEEN REMOTE AND MANUAL MODE

Alternates automatically between the modes when monitored or not. However, so that the pump fulfills the new operation mode, it needs to be reinitialized every time it changes



4.6 CONNECTING ASPRO DEVELCO AND ABL VNG PUMPS

To establish the pump's communication with the concentrator it necessary to define an address at the pump itself, configure it to operate in automation mode and inform this type of pump the EZConfig support module of the concentrator.

TYPE OF INTERFACE and PROTOCOL IN THE EZCONFIG

RS485 • Aspro Develco VNG or Aspro Develco ABL VNG

DEFINING THE PUMP ADDRESS

Only the technical team of the manufacturer is enabled to perform

CONFIGURING BETWEEN REMOTE AND MANUAL MODE

Alternates automatically between the modes when monitored or not

CONFIGURING AT THE CONCENTRATOR

The concept of addressing of this type of pump being defined by a physical pump, and of the EZForecourt by side, it is necessary to have a conversion for registering the pumps in the EZConfig.¹² support module

| EZForecourt | Develco | | ABL |
|-------------|--------------|------|-----|
| | Pump address | Side | |
| 01 | 1 | 1 | 01 |
| 02 | 1 | 2 | 02 |
| 03 | 2 | 1 | 03 |
| 04 | 2 | 2 | 04 |
| 05 | 3 | 1 | 05 |
| 06 | 3 | 2 | 06 |
| 07 | 4 | 1 | 07 |
| 08 | 4 | 2 | 08 |

| EZForecourt | Develco | | ABL |
|-------------|--------------|------|-----|
| | Pump address | Side | |
| 09 | 5 | 1 | 09 |
| 10 | 5 | 2 | 61 |
| 11 | 6 | 1 | 62 |
| 12 | 6 | 2 | 63 |
| 13 | 7 | 1 | 64 |
| 14 | 7 | 2 | 65 |
| 15 | 8 | 1 | 66 |
| 16 | 8 | 2 | 67 |

¹² The numbers in the column "EZForecourt" of the table refer to the column "Logical.Address" of the EZConfig.

4.7 CONNECTING THE PRO AND GALILEO (METROVAL) VNG PUMPS



To establish the pump's communication with the concentrator it necessary to define an address at the pump itself and inform this type of pump at the moment of registering in the EZConfig support module of the concentrator.

TYPE OF INTERFACE and PROTOCOL IN THE EZCONFIG

RS485 • CMD 05 Metroval VNG or CMD01 (or 05) for Galileo

DEFINING THE PUMP ADDRESS

- On the initial screen, press <enter>, arrow down twice, <enter>
- Use the arrow up or down for selecting the “User 4” access level and press <enter>
- Type the password 1111 or 2222, arrow down until the word “Address” appears, <enter>
- Type the desired address, <enter>, <esc>

CONFIGURING BETWEEN REMOTE AND MANUAL MODE

This type of pump assumes the remote mode at the moment of defining the address. To put in manual mode, all you have to do is to place zero in the address.

CONFIGURING AT THE CONCENTRATOR

The concept of addressing of this type of pump being defined by a physical pump, and of the EZForecourt by side, it is necessary to have a conversion for registering the pumps in the EZConfig.¹³ support module

| EZForecourt | Metroval | |
|-------------|--------------|------|
| | Pump address | Side |
| 01 | 1 | 1 |
| 02 | 1 | 2 |
| 03 | 2 | 1 |
| 04 | 2 | 2 |
| 05 | 3 | 1 |
| 06 | 3 | 2 |
| 07 | 4 | 1 |
| 08 | 4 | 2 |

| EZForecourt | Metroval | |
|-------------|--------------|------|
| | Pump address | Side |
| 09 | 5 | 1 |
| 10 | 5 | 2 |
| 11 | 6 | 1 |
| 12 | 6 | 2 |
| 13 | 7 | 1 |
| 14 | 7 | 2 |
| 15 | 8 | 1 |
| 16 | 8 | 2 |

¹³ The numbers in the column “EZForecourt” of the table refer to the column “Logical.Address” of the EZConfig.

4.8 CONNECTING GALILEO GC-21 PUMPS



To establish the pump's communication with the concentrator it necessary to define an address at the pump itself and inform this type of pump at the moment of registering in the EZConfig support module of the concentrator.

TYPE OF INTERFACE and PROTOCOL IN THE EZCONFIG

Current Loop • GC21 Galileo

DEFINING THE PUMP ADDRESS

- Press <enter>, right arrow until the word “CLAVE” appears in the display
- Type the password “2641”, <enter>
- Press right arrow until the word “nro” appears in the display, <enter>
- Type the number of the physical pump (column ‘Pump’ in the table below), press <enter>, <esc>

CONFIGURING BETWEEN REMOTE AND MANUAL MODE

This type of pump assumes the remote mode at the moment of defining the address. To put in manual mode, all you have to do is to place zero in the address.

CONFIGURING AT THE CONCENTRATOR

The concept of addressing of this type of pump being defined by a physical pump, and of the EZForecourt by side, it is necessary to have a conversion for registering the pumps in the EZConfig.¹⁴ support module

| EZForecourt | Galileo | |
|-------------|---------|------|
| | Pump | Side |
| 01 | 1 | 1 |
| 02 | 1 | 2 |
| 03 | 2 | 1 |
| 04 | 2 | 2 |
| 05 | 3 | 1 |
| 06 | 3 | 2 |
| 07 | 4 | 1 |
| 08 | 4 | 2 |

| EZForecourt | Galileo | |
|-------------|---------|------|
| | Pump | Side |
| 09 | 5 | 1 |
| 10 | 5 | 2 |
| 11 | 6 | 1 |
| 12 | 6 | 2 |
| 13 | 7 | 1 |
| 14 | 7 | 2 |
| 15 | 8 | 1 |
| 16 | 8 | 2 |

¹⁴ The numbers in the column “EZForecourt” of the table refer to the column “Logical.Address” of the EZConfig.

4.9 CONNECTING CURRENT LOOP STRATEMA PUMPS



To establish the pump's communication with the concentrator it necessary to define an address at the pump itself and inform this type of pump at the moment of registering in the EZConfig support module of the concentrator.

TYPE OF INTERFACE and PROTOCOL IN THE EZCONFIG

Current Loop • Stratema

DEFINING THE PUMP ADDRESS

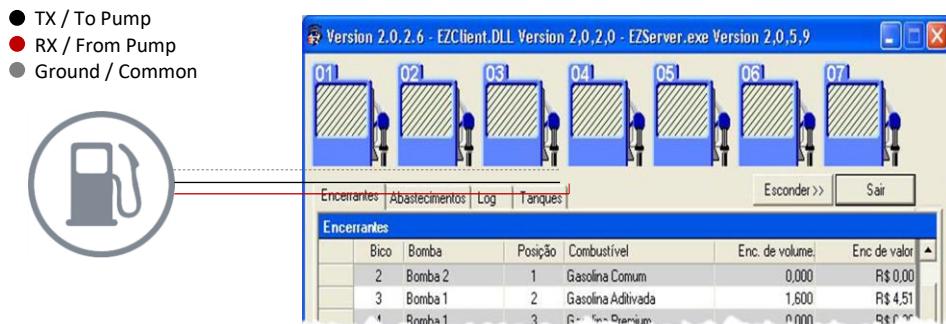
- Press "P" to enter the programming
- Type the sequence "7", "E", "E" (display of liters)
- Type the logical number of side 1
- Type the sequence "E", "2", "E", "E" (display of liters)
- Press "FP" to exit the programming

CONFIGURING BETWEEN REMOTE AND MANUAL MODE

- Press "P" to enter the programming;
- Type the sequence "2", "E", (1= remote mode; 0= local mode), "E"
- Press "FP" to exit the programming

4.10 CONNECTING TOKHEIM PUMPS

Tokheim Pumps require three wires per communication cable: "TX" or "To Pump", "RX" or "From Pump" and "GND" or "common". Each pump occupies a whole connector, having the TX cable in the left positive pole, RX in the right positive pole and the ground wire in any negative pole, as per illustration below:



TYPE OF INTERFACE

TK/SL

DEFINING THE PUMP ADDRESS

It must be done by item 23 of the configurations menu and must correspond to the one configured on the concentrator

CONFIGURING BETWEEN REMOTE AND MANUAL MODE

It must be done by item 19 of the configurations menu, putting 2 for the manual mode and 0 for the remote mode.

NOTE

A magnetic key is necessary to configure the address and type of pump, supplied with the pump and the pump configuration manual.

4.11 CONNECTING ELECTRONIC TANK METER

An electronic tank meter can be connected at the EZForecourt Plus via port COM1 or COM2 and to the EZForecourt USB via port serial of the computer where it is installed.

The communication parameters must be configured in the more commonly used meters are:

- Veeder Root (TLS-50, TLS-300, TLS-350): 9600 BPS, 8 data bits, no parity and 1 stop bit.
- Telemed: 1200 BPS, 7 data bits, odd no parity and 1 stop bit.
- Medliq MMD1: 9600 BPS, 8 data bits, no parity and 1 stop bit.
- OPW Site Sentinel 1: 9600 BPS, 8 data bits, no parity and 1 stop bit. Can be configured to emulate Veeder Root.
- RSP S2: Connection by means of the TCP/IP protocol (local network)

The probe numbers for each tank and in which port the tank meter is connected on the EZForecourt Plus, must be configured on the EZConfig support module. To do that, see [item 3.4](#).

The configuration of the serial cable must be in conformity with the specifications of the supplier. To know how to configure the pinout, see [item 9.11](#).

Monitoring pumps, EZId and tanks

This chapter brings information for monitoring the function of the pumps and tanks by means of the **EZMonitor** support module.

After the pumps being connected at the concentrator, it is necessary to verify if all the connections are working.

The situation of any pump, any fuelling, all the closures, logs and tanks volume can be followed by means of the EZMonitor.

The information that follows demonstrates how to interpret the tables, the screens, as well as to become aware of problems existing in the communication between the pumps and the concentrator.

5.1 MONITORING THE PUMPS

The tables below display all the conditions in which the pumps can operate. Each pump was simulated to represent various situations, described further ahead.



PUMP 01: Automatic mode. The color red indicates fuelling concluded for more than one minute and pending for payment.

PUMP 02: Fuelling in progress

PUMP 03: Manual mode or license plate/card. The color black indicates fuelling concluded for more than one minute and pending for payment. The little Black balls indicate prior fuelling than also are pending. The padlock indicates the need for intervention by the attendant for releasing new fuelling.

PUMP 04: Manual mode or license plate/card. The nozzle was removed and the fuelling can only be released with intervention by the attendant.

PUMP 05: Manual mode, license plate/card or disabled. The padlock indicates the need for intervention by the attendant for releasing new fuelling or that the pump is locked

PUMP 06: It can be in any mode, except manual, board/card or disabled.

PUMP 07: Communication fault with the pump.



The screen to the side indicates a communication fault between the EZMonitor and the computer where the EZServer service is installed, or between this and the concentrator. See item 10.9.

For further information on the pumps authorization modes, see item 3.6.

5.2 MONITORING THE TANKS



When there is an electronic tank meter, the EZForecourt is prepared to display the information dealt with by this equipment. The tanks can only be monitored in their volume and in their status. Any kind of intervention can only be done directly on the meter. To consult the tanks, all you have to do is to

click on the “Tanks” tab, located just below the pumps line. If no information is displayed, see item 10.10.

5.3 MONITORING CLOSURES, FUELING AND LOGS

There are still other consultations that can be done, in addition to the status of the pumps and tanks. The “Closures” tab displays the total electronic current of each of the nozzles installed. The “Fueling” tab shows a history of all the fueling; this information can be filtered by pump, nozzle and/or fuel. The “Log” tab presents the status of the pumps and fueling.

| Encerrantes Abastecimentos Log Tanques | | | | | | Esconder >> | Sair |
|--|---------|-------|--------------------|-------------|-----------------|--------------|------|
| Encerrantes | | | | | | | |
| | Bico | Bomba | Posição | Combustível | Enc. de volume: | Enc de valor | |
| 1 | Bomba 1 | 1 | Gasolina Comum | | 7.600 | R\$ 0,76 | |
| 2 | Bomba 2 | 1 | Gasolina Comum | | 0,000 | R\$ 0,00 | |
| 3 | Bomba 1 | 2 | Gasolina Aditivada | | 1.600 | R\$ 4,51 | |
| 4 | Bomba 1 | 3 | Gasolina Premium | | 0,000 | R\$ 0,00 | |

| Encerrantes Abastecimentos Log Tanques | | | | | | | | Esconder >> | Sair |
|--|--------------|-------|------|--------------------|-----------|--------|----------|-------------|-----------------|
| Abastecimentos | | | | | | | | | |
| | ID do abast. | Bomba | Bico | Combustível | Preço | Volume | Valor | Taken by | Data e hora |
| 1 | Bomba 1 | 1 | 1 | Gasolina Comum | R\$ 0,100 | 7.600 | R\$ 0,76 | 1 | 16/5/2011 17:22 |
| 2 | Bomba 1 | 2 | 2 | Gasolina Aditivada | R\$ 2,799 | 1.610 | R\$ 4,51 | -1 | 16/5/2011 17:34 |
| 3 | Bomba 3 | 2 | 2 | Gasolina Aditivada | R\$ 2,799 | 0,630 | R\$ 1,76 | -1 | 16/5/2011 17:38 |
| 4 | Bomba 3 | 2 | 2 | Gasolina Aditivada | R\$ 2,799 | 0,420 | R\$ 1,18 | 1 | 16/5/2011 17:42 |

5.4 MONITORING MORE THAN ONE CONCENTRATOR

If any installation with more than one concentrator, it is to monitor all of them from a single point, having only to configure the file EZMonitor.ini. Having done this, the EZMonitor automatically displays a list for choosing which unit to monitor. To do that, follow the steps below:

```
[Site0001]
Name=EZForecourt Plus
IP=192.168.1.111

[Site0002]
Name=EZForecourt Plus
IP=192.168.1.111
```

Edit the file EZMonitor.ini. Enter the lines to the side for as many as the concentrators are, using their IP if it is a VPN network, or the router IP, if it is an external network. There are two concentrators in this example.

The next time that the EZMonitor is run, it will automatically display a list with all the units registered in the EZMonitor.ini file.



MONITORING FROM SEVERAL POINTS

In it is needed to open the EZMonitor simultaneously in more than one computer, all you have to do is to configure the parameter "Client ID" of the EZMonitor.ini file for value between 52 to 74.

5.5 MONITORING A CONCENTRATOR IN AN EXTERNAL NETWORK



It is also possible to access a concentrator located on an external network. This is done by means of the ports TCP/IP 5120 to 5150, used by the support applications of the EZForecourt and other generic applications, such as, for instance, FTP.

- Register in the EZMonitor.ini (remote) file the router IP (and not of the concentrator) in which the concentrator is connected, as described in item 5.4
- Access the router setup and associate the ports 5120 to 5150 the concentrator's IP. It is important to note that in this the concentrator's IP needs to be fixed and not DHCP.

| Start ~ End Port | Protocol | To IP Address | Enabled |
|------------------|----------|---------------|-------------------------------------|
| 5120 to 5150 | Both ▼ | 192.168.1.111 | <input checked="" type="checkbox"/> |
| 0 to 0 | Both ▼ | 192.168.1.0 | <input type="checkbox"/> |
| 0 to 0 | Both ▼ | 192.168.1.0 | <input type="checkbox"/> |
| 0 to 0 | Both ▼ | 192.168.1.0 | <input type="checkbox"/> |
| 0 to 0 | Both ▼ | 192.168.1.0 | <input type="checkbox"/> |
| 0 to 0 | Both ▼ | 192.168.1.0 | <input type="checkbox"/> |
| 0 to 0 | Both ▼ | 192.168.1.0 | <input type="checkbox"/> |
| 0 to 0 | Both ▼ | 192.168.1.0 | <input type="checkbox"/> |
| 0 to 0 | Both ▼ | 192.168.1.0 | <input type="checkbox"/> |

Cisco router screen, option “Applications & Gamming”

This chapter brings information for advanced use of equipment.

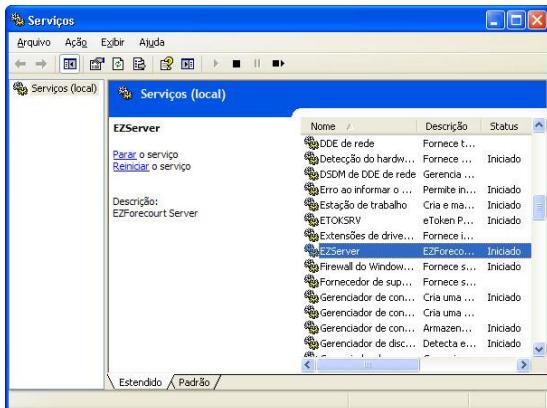
The use of such features must be done with caution for the undue use can stop the tank or cause loss of data.

By means of the procedures in this chapter, you can:

- Stop and restart services
- Access the internal data of the concentrator
- Eliminate system data
- Safe the server configurations
- Save the fuelling

6.1 STOPPING AND RESTARTING THE SERVICES

EZFORECOURT USB



WINDOWS XP: Access the control panel, click in the category “Performance and Maintenance” (if it is in the display by category mode), click in the option “Administrative Tools”, click in the icon “Services”, select the desired service, with the right-hand button or by means of the icons on the window’s upper bar, select “stop” and then “restart”.

WINDOWS 7: Access the control panel, click in the

category “System and Security” (if it is in the display by category mode), click in the option “Administrative Tools”, click in the icon “Services”, select the desired service, with the right-hand button or by means of the

icons on the window’s upper bar, select “stop” and then “start”.

EZFORECOURT PLUS

- Run the EZTelnet support module
- For the EZServer service with the “EZNet stop all” command
- Start the service with the “EZNet start all” command

6.2 ACCESSING THE INTERNAL DATA OF THE CONCENTRATOR

EZFORECOURT USB: The data is available in the C:\EZForecourt folder of the computer where the installation was done.

EZFORECOURT PLUS: As all the data is stored in the concentrator itself, to traffic and eliminate files, it is necessary to make use of the FTP protocol, by means of the NcFTP¹⁵ application, or any other ftp¹⁶ client.

¹⁵ It can be accessed in C:\EZServerCE\NcFTP

¹⁶ The EZTech indicates the product “FileZilla”. Obtain free of charge in <http://filezilla-project.org/>

For any other handling, a Telnet protocol must be used or its customized version, named EZTelnet¹⁷, which differs by the capacities of auto-login and performance of command scripts.

FTP CLIENT DATA: Host = EZServerCE or fixed ip of the concentrator, User = EZAdmin, Password = EZTechOnly (respect the upper and lower cases) and Port = 5125

MICROSOFT TELNET: Perform the command “Telnet EZServerCE 5126”. Login = EZAdmin and Password = EZTechOnly (respect the upper and lower cases)

6.3 ELIMINATING ALL THE SYSTEM DATA

If it necessary to return the concentrator to the manufacturing condition, follow the steps below:

EZFORECOURT USB

- Stop the service EZServer. See how to proceed in [item 6.1](#).
- Erase the EZServer.nv file in the EZForecourt folder of drive C:
- Start the EZServer service

EZFORECOURT PLUS

- Run the EZTelnet¹⁸ support module
- Start the service EZServer with the command EZNet stop EZServer
- Run the command “Del \Ndflash\Ezforecourt\EZServer.nv”
- Start the EZServer service with the command EZNet start EZServer

¹⁷ It can be accessed on the Start Menu – All the programs – Folder EZForecourt Plus

¹⁸ It can be accessed on the Start Menu – All the programs – Folder EZForecourt Plus

6.4 SAVING THE SERVER CONFIGURATION

The server configuration of any of the concentrators can be saved and recovered at any moment. To do that, run the **EZExtract**¹⁹ module [import |export] [filename to be generated] [server name | ip server], where:

Import = log the information on the server

Export = save the server information

Filename to be generated = ini file to where the configuration will be exported

Server name = name of the concentrator in the network. For the **EZForecourt USB** is the name of the computer where the concentrator server is installed. For the EZForecourt Plus is the name of origin “EZServerCe” or any other one informed during the installation.

IP server = Identification IP of the concentrator in the network. For the **EZForecourt USB** é o IP 127.0.0.1 or the IP of the computer where the concentrator server is installed. For the EZForecourt Plus it is the IP informed at the moment of installation.

6.5 SAVING THE FUELING OF THE CONCENTRATOR

EZFORECOURT USB: Stop the service²⁰, save the file “EZServer.nv” located on the “C:\EZForecourt” folder, restart the service.

EZFORECOURT PLUS: Stop the service²¹, run the module EZTelnet²², save the “EZServer.nv” file located in the “\NDFlash\EZForecourt” folder at the concentrator and restart the service.

¹⁹ It can be accessed on C:\EZForecourt (in the traditional version) or C:\EZForecourtPlus or via EZTelnet (in the Plus version)

²⁰ See in [item 6.1](#) how to stop and restart the service

²¹ See in [item 6.1](#) how to stop and restart the service

²² It can be accessed on the Start Menu – All the programs – Folder EZForecourt Plus

Emulating the concentrators

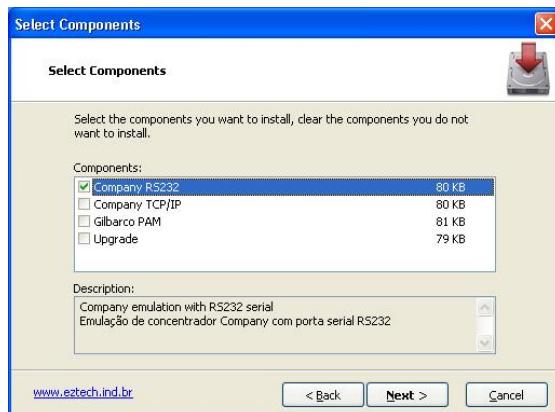
This chapter brings information to configure and enable the emulation of the concentrator from other companies.

When a gas station decides to replace a track concentrator for the EZTech solution and the commercial management system is not integrated to the API EZTech, it becomes necessary to emulate the concentrator to be removed for the sake of compatibility with the management system, until the due integration is done.

This is done by means of installing specific components in the computer where the client's programs have already been installed, and in the case of the Companytec concentrators, also through the use of virtual serial ports that eliminate the need of connection by physical serial port.

As soon as possible, adapt the management program to pick up the de concentrator information by means of the EZTech functions library, which considerably increases the data transmission speed.

7.1 INSTALLING THE COMPONENTS



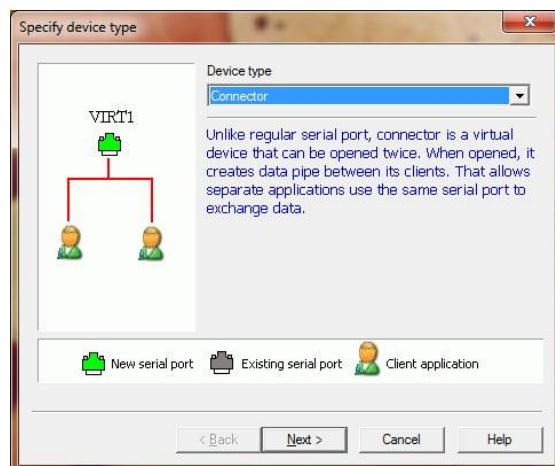
It is necessary to install a few components for the emulation to work. To do that, follow the steps below:

- Run the installation program “EZForecourt USB Emulators 99b99.exe” or “EZForecourt Plus Emulators 99b99.exe”²³
- Mark the component Company TCP/IP
- Click on “next” and then on “stop”.

7.2 CONFIGURING VIRTUAL PORTS

What proves that the emulation is working is the working is the establishment of the connection in the CBC Manager product. To do that it is necessary to connect the EZForecourt by virtual port serial. See how in the steps below:

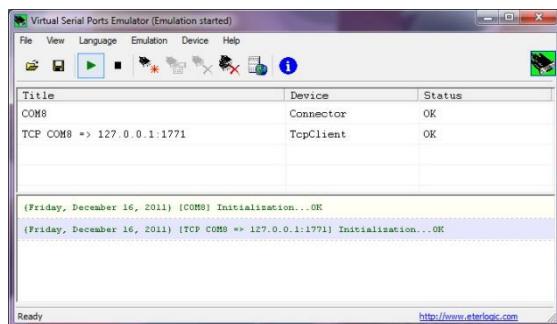
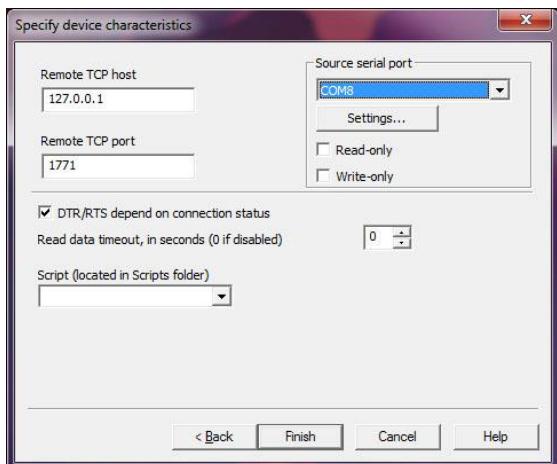
USING THE VSPE SOFTWARE



- Run the “SetupVSPE.msi”²⁴ program to install the virtual port emulator. Click on “next” until the end.
- Click in the installed icon of the VSPE to start the application
- Select the option “device - create” no menu superior.
- Select the option “connector” in the item “Device Type”, click on “next”, in the “Virtual Serial Port” list, select the serial port that will be used in the rear-guard system, click in “finish”

²³ The program is in the installation CD or in the download area in the EZTech site. Take care to use the adequate version.

²⁴ The program is in the installation CD or in the download area in the EZTech site.



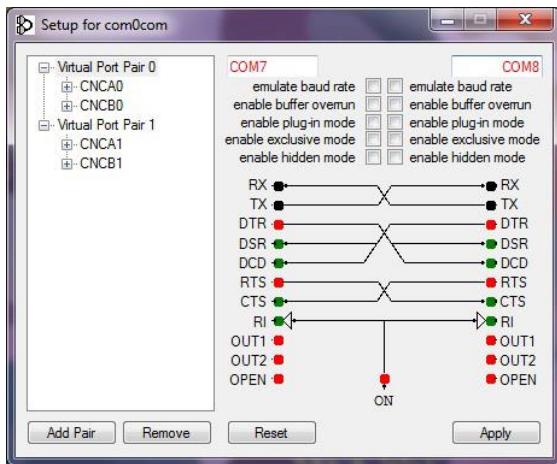
- Select the option “device - create” in the upper menu again.
- Select the option “TcpClient” in the item “Device Type”, click in “next”
- Fill the “Remote TCP Host” field with the value “127.0.0.1” (if EZForecourt) or EZServerCE or IP of the concentrator (if EZForecourt Plus), fill the field “Remote TCP Port” with the value “1771”, fill the field “Source Serial Port” with the serial port selected in the previous step, click in “finish”
- Click on the button ► in the toolbar in the upper part of application window. If everything is right, the ports appear with “ok” in the “status”.²⁵
- Save the configuration inside the “C:\EZForecourt” folder with the name “EZF.vspe”.
- Configure a shortcut for the runnable with

the option **Destination** = "C:\Files\de\programs\Eterlogic.com\Virtual Serial Ports Emulator\VSPEmulator.exe" –minimize –hide_splash C:\EZForecourt\EZF.vspe and with the option **Start in** = "C:\Program Files\Eterlogic.com\Virtual Serial Ports Emulator"

- Place this shortcut to be initialized on the load-up of the operational system.

²⁵ The concentrator needs to be switched on and connected. If any of the portions appears as “Ready” in the “status” column, click on the button ■ and in ► once again

USING THE SOFTWARE WITH 0 (ONLY WITH THE EZFORECOURT USB)



- Run the installation program “Setup.exe”²⁶ and click “next”, “I agree”, “next”, “Install”, “Install the driver software anyway”²⁷, “next” and “finish”
- Perform the “Setup.exe”²⁸ configuration program
- There are two boxes in the right upper corner in the window that will open. Replace “CNCA0” by “COM7” and “CNCB0” by “COM8”, click in “apply”. If the message “The port name is already logged as in use” appears, click in “continue” for as many times as the message appears.
- Close the window on the closing button
- Edit the file “EZ2Serial.ini”²⁹ and change the parameter “Tag name “[port]” to COM7

²⁶ The program is in the “com0com” folder of the installation cd or in the downloads area of the EZTech site

²⁷ Click in “continue” if the message appears

²⁸ It can be accessed on the Start Menu – All the programs – Folder com0com

²⁹ It can be accessed in c:\EZForecourt

This chapter brings information for integrating the Passo system to the EZForecourt.

The Passo solution is the capacity of the pumps from the manufacturers **Wayne** and **Gilbarco** for integrating fuelling and payment. For the pump to be released it is necessary to type the vehicle's license plate on the keyboard of the pump itself or to register a card (by means of a scanner) that will be handed to the client. At the moment of payment, the fuelling will be identified by the license plate or by the card in possession of the client.

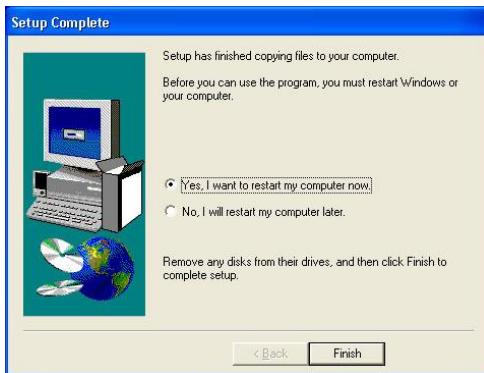
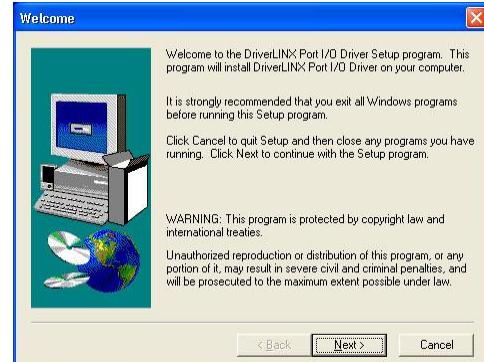
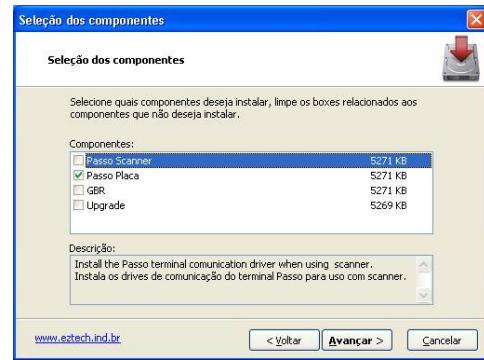
So that this process can be perceived by the EZForecourt, an interface was created that needs to be installed in the same computer where the EZForecourt is installed or in any computer in the same network where the EZForecourt Plus is installed, as long as the operational system is **Windows XP**.

Then it is necessary:

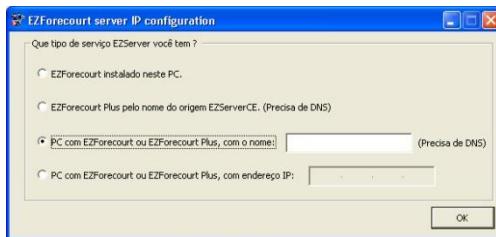
- To install the interface with the EZForecourt
- To configure the system Passo

8.1 INSTALLING THE INTERFACE

It is necessary to install a few components so that the interface can work. This installation divides into two parts; components of the EZforecourt and components Passo itself. To do that, follow the steps below:



- Run the installation program “EZForecourt Tag 99b99.exe”³⁰
- Mark the interface that you wish to install
- Click on next.
- On the IP configuration screen, in the last option, inform the IP of the device where the EZForecourt (EZServer) is installed
- Click on “End”
- The installation of the Passo feature will start automatically:
- Click on “next”, “yes”, “next”, accept the suggestion of the installation site, “next”, Select “typical”, “next”, accept the suggestion of the folder, “next”, “next”, accept the suggestion of the “Yes, I want to restart my computer now”, “finish”.
- NOTE –** If the installation is run again, a screen will appear to confirm the substitution of files. Click on “Yes to all” and repeat the steps above.



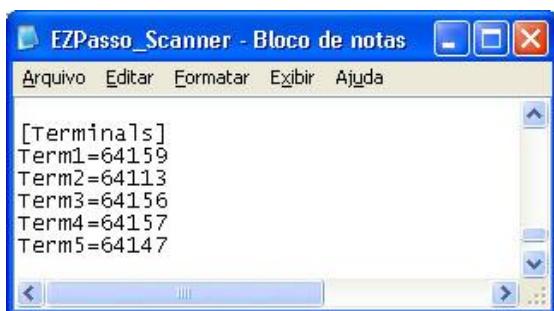
³⁰ The program is in the installation CD or in the download area in the EZTech site. Take care to use the adequate version.

8.2 CONFIGURING THE PASSO SYSTEM

It is necessary to configure the form how the pumps are treated in the Passo system. To do that, follow the steps below:



- Run the program “WCF100.exe” ³¹
- In the “setup” tab inform the port serial by means of which the communication with the Passo will take place. Select the port in the “communication port” port.
- In the “terminals” tab add the serial number of the terminals ³² to identify each terminal. Type the serial in the box “terminal number” and click in “add”.
- In the “applications” tab associate the numbers of the terminals to the Passo application installed in the terminals. Select a terminal in the list, type the path “c:\EZForecourt\Passo\PassoWayne.tro” in the “application” box and click in “confirm”.
- Edit the file “Passo.ini” ³³. In the section “[terminals]”, associate the serial numbers to the fuelling points that were already listed, eliminating the excesses.



³¹ It can be accessed in C:\EZForecourt\Passo

³² Serial number is on the pump monitor

³³ It can be found in C:\EZForecourt\Passo

9.1 UNDERSTANDING THE PANEL LIGHTS

POWER. Indicates the equipment power. Must be on continuously, otherwise it means problem on the board, supply, energy or even the LED.

RX/TX. Indicate, respectively, response from the pump and message to the pump in an active slot. They must blink alternately. If the RX does not blink, there are problems in the pump.

PUMPS COMMUNICATION STATUS. Located to the side of the “Power” LED. Indicates the function of the component responsible for communication with the pumps. It must blink in the frequency of once per second, otherwise it means firmware upgrading in course or supply with the wrong voltage.

STATUS OF THE WINDOWS CE. Two LED's located to the side of the entrance for the SD card. Present only in the Plus version. Indicates the function of the concentrator's operational system. They must blink in the frequency of once per second, otherwise it means concentrator restart in progress, if they are off, or equipment error if only the one on the right-hand side is blinking.

LAN PORT LIGHTS. Only in the EZForecourt Plus, in the rear part. The green one indicates activity in the network. If it is off it indicates communication fault of the concentrator. The yellow one indicates the transmission speed. If it is on, it indicates 100 mhz, otherwise, it indicates 10 mhz.

9.2 UPGRADING THE CONCENTRATOR

To upgrade the client and server software with no loss of data, follow the steps below:

EZFORECOURT USB: Run the installation program “EZForecourt USB Install 99b99.exe”³⁴ with the component “EZForecourt USB Upgrade”. This procedure will upgrade the client and server part.

EZFORECOURT PLUS: Run the installation program “EZForecourt Plus Install 99b99.exe”³⁵ with the component “EZForecourt Plus Upgrade”. This procedure will upgrade the client part and will copy the server upgrades to the computer. As the server of the Plus is in the concentrator, it becomes necessary to run the option “Upgrade EZForecourt Plus”³⁶, which copies the computer files to the concentrator.

9.3 ACTIVATING THE LICENSE KEY

```

ez Connected to EZServerCE:5126
EZLicense CE version 1.0.2 (C) 2007 EZTech Ltda
CE Version (EZServerCE) 5.0 version 2.0.0.6 Built Sep 24 201011:36:14.
Service EZSerial stopped.
Service EZServer stopped.
CE Version (EZServerCE) 5.0 version 2.0.0.6 Built Sep 24 201011:36:14.

EZModule serial # EZ0006/11
Boot version EB1.04// 27/06/2009
Current version EZ0236-GWngDBNtMbs

Enter first key segment 700D-*****-*****-*****-***** > 700d
Enter second key segment 01e2-*****-*****-*****-***** > 01e2
Enter third key segment 01e2-a4d6-*****-*****-***** > a4d6
Enter fourth key segment 700D-01E2-A4D6-*****-***** > bf6d
Enter fifth key segment 700D-01E2-A4D6-BF6D-***** > b581
Enter last key segment 700D-01E2-A4D6-BF6D-B581-__ > 8237

Processing serial number 700D-01E2-A4D6-BF6D-B581-8237
License key good
Serial number ??000/11
Expiry date 3/31/2011 11:59:59 PM
Licensed for EZServer.
Licensed for EZMonitor.

Save the license key (Y/N) ? -
```

- Run the **EZTelnet**³⁷ support module
- In the DOS command screen, type the EZLicense command
- The first of the 6 segments with 4 character of the license key³⁸. Type each one and press enter.
- If the key is correct, the confirmation “Save de license key (y/n) ?” will be requested. Type “Y” to confirm or “N” to desist and press enter.

³⁴ The program is in the installation CD or in the download area in the www.EZTech.com.br. Use the adequate version.

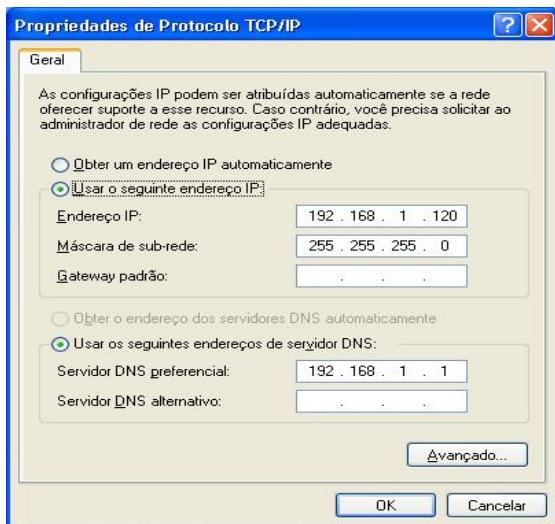
³⁵ The program is in the installation CD or in the download area in the www.EZTech.com.br. Use the adequate version.

³⁶ Can be accessed on the Start Menu – All the programs – EZForecourt Plus Folder

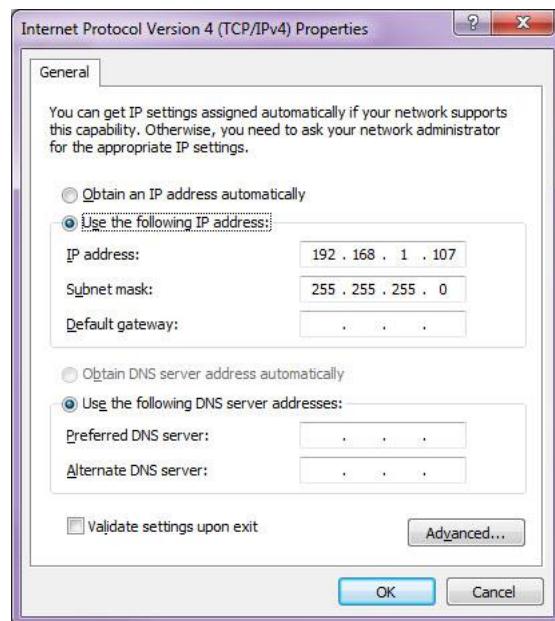
³⁷ Can be accessed on the Start Menu – All the programs – EZForecourt Plus Folder

³⁸ To obtain the license key, refer to the insert that accompanies the product or call support

9.4 IDENTIFYING THE NETWORK



Windows XP: Access “Control panel – Network connections” and click in the network that identifies the physical local network. In the “General” tab, click in the item “TCP/IP Protocol”. If the network is DHCP, the option “Obtain an IP address automatically” will be marked, otherwise it will be the option “Use the following IP address”.



Windows 7: Access “Control panel – network and Internet – Network connections”, and click in the item “Local Area Connection”, mark the option “Internet 4 Protocol (TCP/IPv4), click in “properties”.

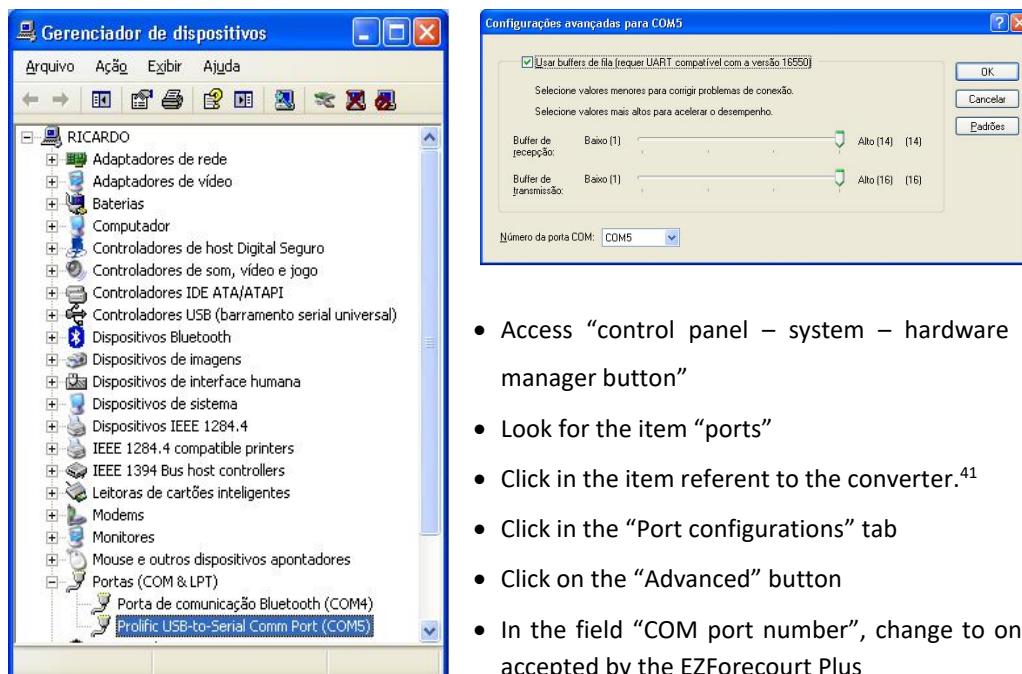
9.5 USING CABLES TO CONFIGURE THE EZFORECOURT PLUS

The IP configuration or the upgrading of the operational system of the EZForecourt Plus must be done by means of its COM1 serial port. If the computer has DB9 serial port, a female RJ45-DB9 converter cable with

specific pinout³⁹ must be used. If it has only the USB port, a USB-Serial cable must be used connected to the RJ45-DB9 cable. This cable needs to have its drivers installed in accordance with the manufacturer's specifications.⁴⁰



This installation process will associate the converter to a random serial port. As the module **EZDownload** only addresses the ports COM1 to COM10, it is necessary to verify in which port the device was installed. If it was outside this range, associate it to one of the ports of this range. To do that, follow the steps below:



- Access “control panel – system – hardware tab – devices manager button”
- Look for the item “ports”
- Click in the item referent to the converter.⁴¹
- Click in the “Port configurations” tab
- Click on the “Advanced” button
- In the field “COM port number”, change to one of the ports accepted by the EZForecourt Plus

³⁹ To know how to configure the pinout, see item 9.11

⁴⁰ EZTech appoints the manufacturers: Comm5 (www.comm5.com.br) and FlexPort (www.flexport.com.br).

⁴¹ In this example a converter of the brand Prolific was used.

9.6 INSTALLING THE CLIENT APPLICATIONS

When having the intention of monitoring or configuring the system, or, further, use third-party applications, from one point in a network different from the site where the EZForecourt USB or the EZForecourt Plus was already installed, it is necessary only to install the applications to do that, following the steps below:

- Run the installation program “EZForecourt Client Install 99b99.exe”⁴²
- Click on “end” when the installation is finished.

9.7 CONFIGURING THE DATE AND TIME FOR THE CONCENTRATOR

EZFORECOURT USB: Date and time of the transactions is determined by the configuration of the server computer.

EZFORECOURT PLUS: there is an internal clock modified by means of the **SetDateTime**⁴³ support module.

9.8 FINDING OUT THE CONCENTRATOR VERSION

For discovering which version of the concentrator is in use, check the header of the window of the EZMonitor support module, or right click the mouse on the file EZServer.dll (if EZForecourt Plus)⁴⁴ or in the file EZserver.exe (se EZForecourt USB)⁴⁵ and see the information in the “details” tab.

⁴² The program is in the installation CD or in the download area in the www.EZTech.com.br. Use the adequate version.

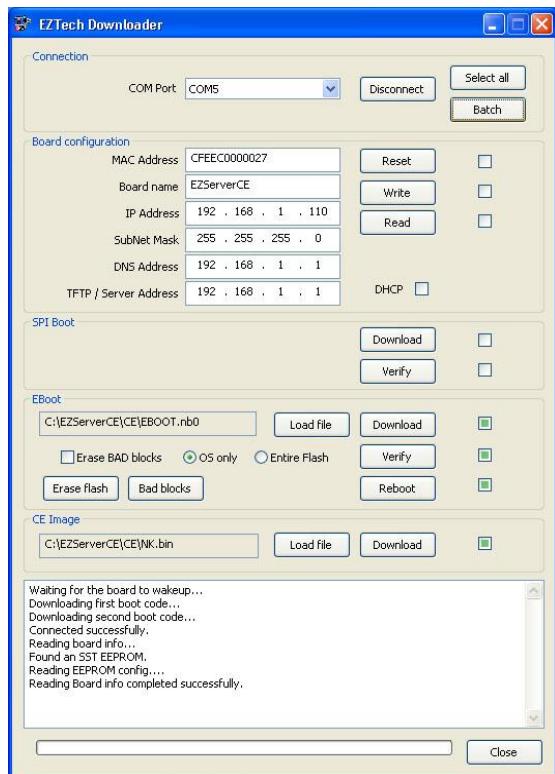
⁴³ Can be accessed on the Start Menu – All programs – EZForecourt Plus Folder

⁴⁴ Can be accessed on C:\EZServerCE\Release

⁴⁵ Can be accessed on C:\EZForecourt

9.9 Upgrading the EZForecourt Plus operational system

The EZforecourt Plus uses the operational system Windows CE for its function. Whenever a new version is released or when forced upgrading is required, the system must be recorded in the flash memory of the concentrator. To do that, follow the steps below:



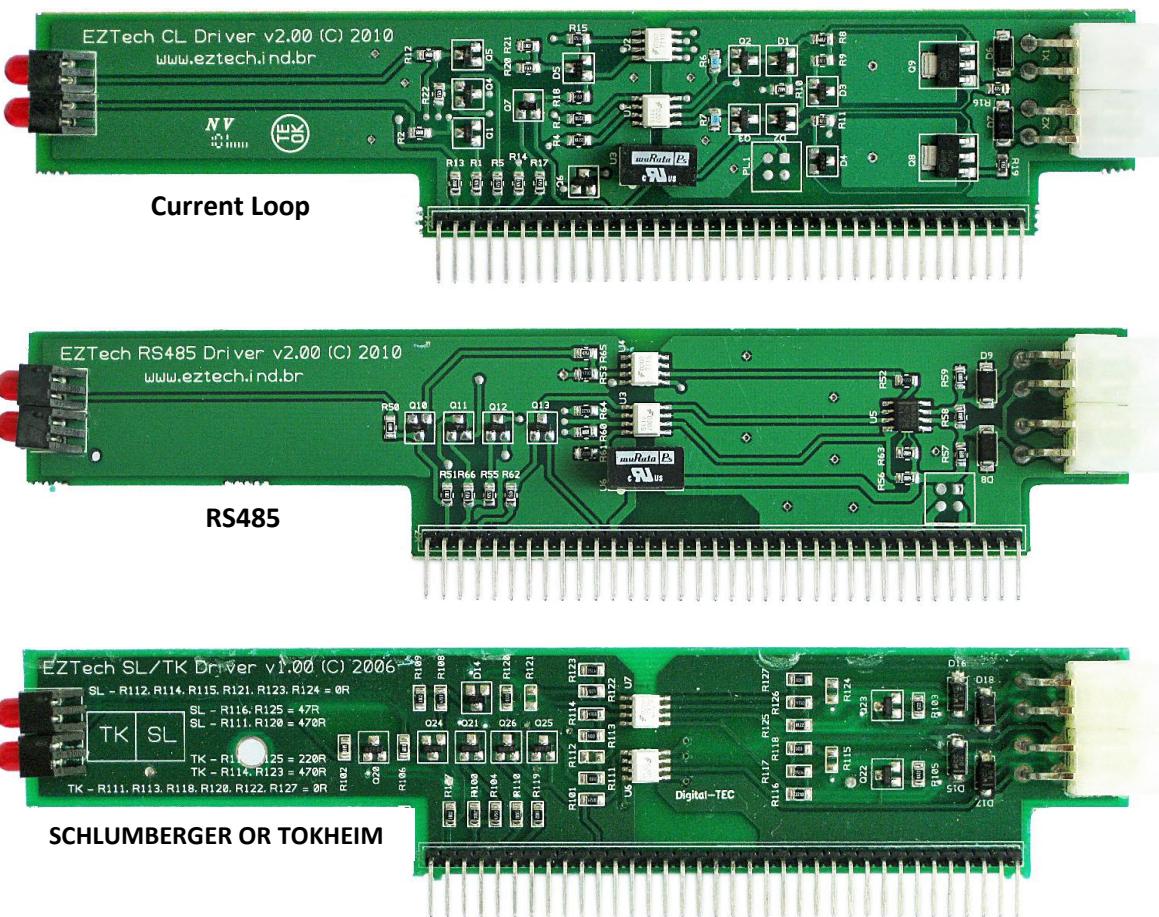
- Switch on and connect a converter cable between the COM1 port of the EZForecourt Plus and a male DB9 serial port or USB of the computer. Before continuing, see item 9.5.
- Connect a network cable between the Lan port of the EZForecourt Plus and an ethernet port of the computer or hub.
- Run the **EZDownload**.⁴⁶ support module
- Select in the “COMM Port” field the serial port where the converter was installed (see item 9.5).
- Click on “Connect”.
- Press the button “SB” on the rear part of the concentrator, keep it pressed and switch it on.
- If the connection is established, the information of the concentrator will be loaded on the application screen.

- Mark the boxes to the side of the “download”, “verify”, and “reboot” buttons in the “eBoot” section and the box to the side of the “download” button in the “CE Image” section.
- Click on the button “Batch”, wait for the message “CE Download Successful” in the run log and click on the button “Close”.

For upgrading the client part of the EZforecourt Plus, see item 9.2.

⁴⁶ Can be accessed on the Start Menu – All programs – EZForecourt Plus Folder

9.10 COMMUNICATION BOARDS



9.11

CONFIGURING THE SERIAL CABLES

| EZForecourt RJ45 COM1 or COM2 | PC Computer DB9 Female | Veeder Root TLS 300/350 DB25 Male | Veeder Root TLS 50 DB9 Female | OPW Site Sentinel 1 RJ45 | Medliq MMD1 DB9 Female |
|----------------------------------|---------------------------|---|-------------------------------------|--------------------------------|------------------------------|
| Pin 4 - Ground | Pin 5 - Ground | Pin 7 - Ground | Pin 5 - Ground | Pin 3 - Ground | Pin 3 – Ground |
| Pin 5 - RX | Pin 3 - TX | Pin 2 - TX | Pin 3 - TX | Pin 4 - TX | Pin 1 – TX |
| Pin 6 - TX | Pin 2 - RX | Pin 3 - RX | Pin 2 - RX | Pin 5 - RX | Pin 2 - RX |

For configuration of the tank meters, see item 4.11.

9.12 INI FILES

EZDriver.ini: pre-configured with all the kinds of pumps and protocols supported by EZTech. It must not be altered.

EZLicense.ini: holds the license keys.

EZMonitor.ini: configurations of the EZMonitor support module.

EZPasso.ini: configurations of the management service for the Passo terminal.

EZ2Serial.ini: configurations of the EZ2serial service for Company and Pam emulation.

EZServer.ini: all the configurations of the EZServer service.

9.13 AUXILIARY MODULES

EZConfig: Configures the relation of the pumps with the concentrator. Performs on the EZServer.nv file

EZMonitor: Monitors the function of pumps and tanks.

EZLicense: Registers and validates the license key. Performs on the EZLicense.ini file.

EZSetup: Configures the IP address, enters the license key, recovers the logs, performs data base backup

EZLoader: Upgrades the firmware of the concentrator (EZForecourt).

EZIPConfig: Configures all the ini files from the client side with the IP where the EZServer service is being run. Performs on the EZClient.ini, EZMonitor.ini, EZPasso.ini and EZServerCE.cfg files

EZNet: Application necessary to launch and stop any kind of service of the concentrator (EZForecourt Plus).

EZExtract: Import and export configurations between any .ini file and the EZForecourt server.

GetLogs.bat: Exports the concentrator logs of the “Logs.zip” file in the C:\EZServerCE\logs folder of the computer (EZForecourt Plus).

Install.bat: Installs the applications in the concentrator and initializes with the factory configurations. (EZForecourt Plus).

Upgrade.bat: Upgrades the last version of the runnables and dlls of the concentrator, without however initializing it with the factory configurations. Useful only for upgrading the concentrator when the upgrading is not indicated by the newer version by means of the complete installation process (EZForecourt Plus).

SetDateTime.bat: Upgrades the concentrator time in the Plus version.

10.1 FAULT ON CALL [-19] – ‘CALL SOCKET’ NOT CONNECTED TO THE EZSERVER

MOTIVES: (1) Concentrator switched off ◆ (2) Concentrator not connected by the USB port or LAN, or damaged cables ◆ (3) IP of the concentrator (EZForecourt Plus) or the computer (EZForecourt Usb) not configured or incompatible ◆ (4) EZServer service interrupted

SOLUTIONS: (1) Switched on the concentrator and connect in accordance with what is described for each model, also checking the behaviors of the panel LED's as described in [item 9.1](#) ◆ (2) Check the use of the correct port and/or change cables ◆ (3) Run the EZIPConfig support module to check the IP address configured in the client side. If the Plus model, see [item 2.2](#) ◆ (4) Restart the service. If you don't know, see [item 6.1](#).

10.2 FAULT ON CALL [49] – THE EZMODULE IS SWITCHED OFF OR DISCONNECTED

MOTIVES: License invalid or concentrator was change and a new license was not informed

SOLUTIONS: Run the EZLicense support module to check and/or register a new license, or see [item 10.7](#)

10.3 FAULT ON CALL [9] – ANOTHER CLIENT IS ALREADY LOGGED WITH THIS ID

MOTIVES: Module is already being run.

SOLUTIONS: In the “EZMonitor.ini”⁴⁷ file, change the parameter “Client ID” to any other number between 51 and 74.

10.4 FUELLING – INCOHERENT VALUES

MOTIVES: Number of decimal places for volume, price and/or value is different in the pump and in the EZConfig or fuelling took place in offline mode.

SOLUTIONS: Check the compatibility of the formats in the pump and in the fields “Volume Format”, “Price Format” and “Value Format”. See in [item 3.6](#) how to configure the pumps. If they are compatible, the problem was caused by the offline mode and it cannot be solved.

10.5 PUMPS MARKED WITH “X” AT THE EZMONITOR

MOTIVES: (1) Type of pump, address and/or slot is different in the pump and the EZConfig ◆ (2) Sequence of nozzles different in the pump and the EZConfig ◆ (3) Pump not configured for automation ◆ (4) Cabling ruptured, in short, not connected in the pump or with a polarity problem.

SOLUTIONS: (1) Check the compatibility of the type of pump, address and slot. See in [item 3.6](#) how to configure the pumps ◆ (2) Checking the mapping of the nozzles with the tanks. See in [item 3.6](#) how to configure the pumps ◆ (3) Place the pump in automation mode ◆ (4) Measure the voltages in accordance with the procedures of [item 10.6](#).

10.6 PUMPS COMMUNICATION CABLE WITH DEFECT

1st METHOD: Both current loop or RS485 unions can have their connections checked by means of the signal continuity in the cabling. In the pump, disconnect and join the two poles. In the concentrator, disconnect the communication cables. Select the multimeter in Ohms and measure the resistance between the negative and positive connectors of the sandal bar. If the cable is not ruptured, the value must be less than

⁴⁷ Can be accessed on C:\EZForecourt

20 ohms. Afterwards, disconnect the two poles and measure again in the same manner. The value must be greater than 100,000 ohms. Reconnect the cables.

2nd METHOD (ONLY CURRENT LOOP): Current loop connections are polarized, and metering the voltage between the negative and positive connectors of the sindal bar connected at the concentrator, several problems can be detected and corrected. The cable needs to be connected at the pump and the concentrator, and the multimeter must be selected in DC Voltage. The following table describes possible values and their meanings. The values refer to a pump by connector. In case of two, consider the values doubled.

| Manufacturer | Voltage | Description |
|--------------|-------------------|---|
| All | < 0.2V | The positive and negative wires are in short, the concentrator is switched off or defective. |
| | > 10V | The loop is not closed. It is probable that the cable is not connected to the pump or ruptured. |
| Wayne | > 0.4V and < 1.2V | The positive and negative wires are inverted. |
| | > 2.0V and < 4.0V | The connection is correct. |
| Gilbarco | > 2.3V and < 2.7V | The positive and negative wires are inverted. |
| | > 1.5V and < 2.0V | The connection is correct. |
| Stratema | 3.4v | The connection is correct |
| | 2.6v | The positive and negative wires are inverted. |

10.7 CONCENTRATOR STOPS WORKING AFTER BEING CHANGED

MOTIVES: New concentrator was not initialized or is a version incompatible with the version of the EZServer (EZForecourt) or the EZClient.dll (EZForecourt Plus) installed in the computer.

SOLUTIONS: For the EZForecourt, run the “EZLoader”⁴⁸ application: click on “Open”, “Download” and “Close”. For the EZForecourt Plus, run the “Upgrade EZForecourt Plus”⁴⁹ application.

10.8 PUMPS WITH NO ACTIVITY IN THE EZMONITOR OF THE EZFORCOURT PLUS

⁴⁸ Can be accessed on C:\EZForecourt.

⁴⁹ Can be accessed on the Start Menu – All programs – EZForecourt Plus Folder

MOTIVES: Physical problem in the concentrator

SOLUTIONS: (2) Check the lights in the “Lan” port in the rear part of the equipment, where there must be at least a green LED active, otherwise, assign some kind of physical defect in the concentrator network board, the network cable or the router.

10.9 PUMPS WITH NO ACTIVITY IN THE EZMONITOR OF THE EZFORECOURT

MOTIVES: Installation was not performed

SOLUTIONS: Run the installation “EZforecourt Install 99b99.exe”

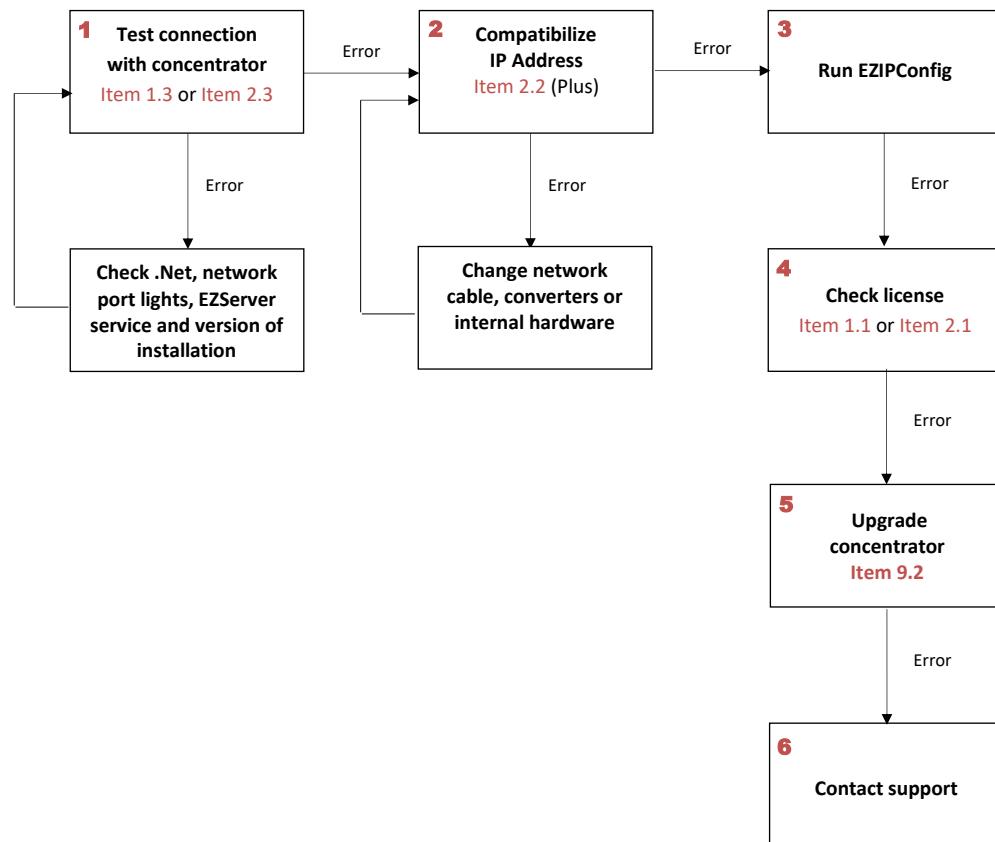
10.10 TANKS WITH NO ACTIVITY IN THE EZMONITOR

MOTIVES: (1) Cable meter ruptured ♦ (2) Tank port not configured in the EZConfig ♦ (3) Meter not configured ♦ (4) File “EZMonitor.ini” configured in a wrong manner.

SOLUTIONS: (1) Check if the cable is intact ♦ (2) See in [item 3.4](#) how to configure the tanks through the EZConfig support module ♦ (3) See in [item 4.10](#) how to configure the tank meters ♦ (4) Change the parameter “TanksTab” to “Yes”.

10.11 FLOW FOR DETECTING ERRORS IN THE COMPUTER X EZFORECOURT COMMUNICATION

If the problem that occurred is not foreseen in the previous flow, follow the flow below:

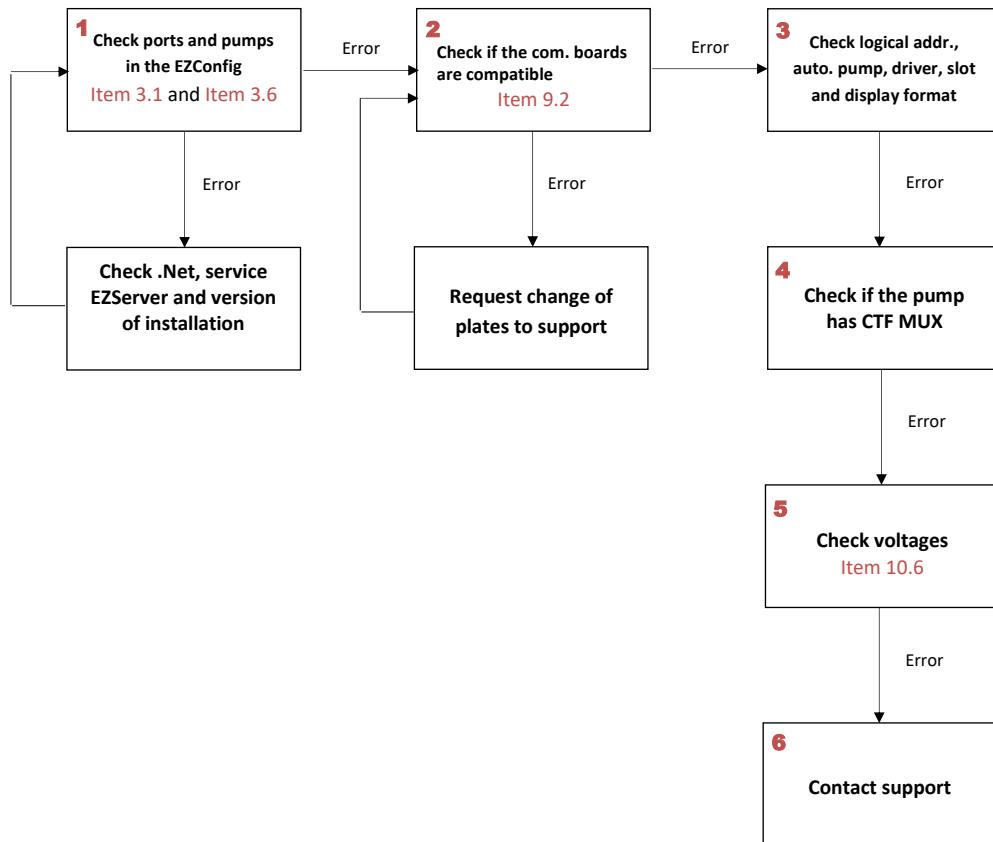


Before contacting support by telephone, generate an error log and send it by email with description of the problem, date, time, model of pump and details of the last fuelling.

To generate the error log: In the EZFORECOURT PLUS, run the option “Get EZForecourt Plus Logs” in the EZForecourt Plus folder of the Windows start menu. This procedure generates a file called “logs.zip” in the c:\EZServerCe\Logs folder. In the EZFORECOURT, compact the contents of the c:\EZForecourt\Log folder.

10.12 FLOW FOR DETECTING ERRORS IN THE PUMPS X EZFORECOURT COMMUNICATION

If the problem that occurred is not foreseen in the previous flow, follow the flow below:



Before contacting support by telephone, generate an error log and send it by email with description of the problem, date, time, model of pump and details of the last fuelling.

To generate the error log: In the EZFORECOURT PLUS, run the option “Recover Logs” in the EZForecourt Plus folder of the Windows start menu. This procedure generates a file called “logs.zip” in the c:\EZServerCe\Logs folder. In the EZFORECOURT, compact the contents of the c:\EZForecourt\Log folder.

10.13 AUTOMATED MODE: One of the tests that can be done after verifying if the pump is to take one the nozzles off. If it is connected at the concentrator and released is because it is not in automation

11.1 UNDERSTANDING THE MULTIMETER



TYPES OF METERING APPLICABLE IN AUTOMATION

- ① DC VOLTAGE
- ② AC VOLTAGE
- ③ OHMS
- ④ DIODE SCALE

POSSIBLE TESTS IN AUTOMATION

- OUTLET VOLTAGE: AC Voltage
- VOLTAGE IN THE CONCENTRADOR: DC Voltage
- CABLE IDENTIFICATION: Ohms or Diode
- CABLE CONTINUITY: Ohms or Diode
- POS AND NEG IDENTIFICATION: Ohms or Diode
- CABLES CONNECTED TO THE PUMP HEAD: Diode
- PUMP COMPONENTS: DC Voltage or Diode

11.2 PERFORMING TESTS

VOLTAGE IN THE CONCENTRATOR

Select the multimeter in DC voltage, place one of the meters in the external part of the power plug and the other in the internal part. Observe if the result is within the output voltage informed in the converter source.

CABLE IDENTIFICATION AND CONTINUITY

Select the multimeter in Ohms or Diode. In the pump, disconnect the automation cable and join the two poles. Disconnect also the concentrator, however without joining the two poles. Measure the negative and positive connectors in the sindal bar or directly in the wires. If the cable is not ruptured, the value must be smaller than 20 ohms. Afterwards, disconnect the two poles and measure again in the same manner. The value must be greater than 100,000 ohms. Possible problems: Cost with the loop, splices or few filaments.



IDENTIFICATION OF POS AND NEG

Select the multimeter in DC voltage. With the automation cable connected both in the pump and the concentrator, measure the negative and positive connectors in the sindal bar or directly in the wires. Compare the values with those of the table below.

| Manufacturer | Voltage | Description |
|--------------|-------------------|---|
| All | < 0.2V | The positive and negative wires are in short, the concentrator is switched off or defective. |
| | > 10V | The loop is not closed. It is probable that the cable is not connected to the pump or ruptured. |
| Wayne | > 0.4V and < 1.2V | The positive and negative wires are inverted. |
| | > 2.0V and < 4.0V | The connection is correct. |
| Gilbarco | > 2.3V and < 2.7V | The positive and negative wires are inverted. |
| | > 1.5V and < 2.0V | The connection is correct. |
| Stratema | 3.4v | The connection is correct |
| | 2.6v | The positive and negative wires are inverted. |

| Characteristic | EZForecourt | EZForecourt Plus |
|------------------------------|---|---|
| Connection with the computer | USB | Ethernet |
| Connection with the pumps | Current Loop Boards, RS485, Tokheim, Schlumberger opto-isolated | Current Loop Boards, RS485, Tokheim, Schlumberger opto-isolated |
| Communication capacity | 16 physical pumps and 4 different types of pumps | 16 physical pumps and 4 different types of pumps |
| Offline storage | Up to approx. 2,000 fuelling with no data recording | Above 100,000 fuelling with data recording |
| Processor | 64Mhz ARM7 RISC | 200Mhz ARM9 RISC |
| Memory | 64kb of RAM and 304Mb of flash | 64Mb of RAM and 1Gb of flash |
| Operational System | Windows 32 bits | Windows 64 bits |
| Wireless (optional) | Approx. 250m | Approx. 250m |
| Network cable | Automatic polarity | Automatic polarity |
| No-break (optional) | Autonomy of 6h | Autonomy of 6h |
| Power | Bi-volt power supply | Bi-volt power supply |
| Dimensions | 230 x 190 x 75 | 230 x 190 x 57 |

NOTES