



## Introduction

Thank you for purchasing the FP-1 Conversion Kit for Four-Price Vending machines.

This kit is quite simple to install and to operate and replaces the old FS-1+ conversion kit that has been around for so many years. The optional LCD display will enable you to program the basic function and retrieve accounting information such as the value in the coin tubes of the changer and the sales. **Version FP-1+ of the conversion kit has DEX capability.**

This kit allows you to replace your discontinued Four-price coin changer with a new state-of-the-art MDB coin changer and add other MDB peripherals such as a bill acceptor or cashless system.

The kit was designed to work solely in a Four-Price 24 or 120 volts machine. It cannot work in a Single-price machine. The SP-1 conversion kit is available for single-price machines. Both are very similar. The most recognizable difference is the number of relays. The SP-1 has only two relays while your FP-1 has five.

The FP-1 conversion kit can work in any country in the world providing you connect the proper coin changer, bill acceptor, cashless system, or a combination of those three peripherals. The FP-1 can display messages in the following four languages: English, French, Portuguese, and Spanish. Switching language is done using the two programming buttons on the board. The new FP-1 also offers a very unique feature called the basic price setting. Depending your needs, you can decide to set the basic value to match a specific base. In Brazil, Canada, and in the USA, the default price base is \$0.05. In Mexico, it is \$0.50.

You will find here how to install your FP-1 Conversion Kit, how to program it, and how to retrieve sales information. We are confident you will enjoy this new kit.

Version V1.6 and up includes token and coupon handling.

### The FP-1 conversion kit contains the following components:

- One 100-240V, 50-60 Hz Switching Power supply.
- One circuit board mounted on an aluminum plate and protected by a transparent Lexan.
- One harness to connect into the Four-Price socket of the machine.
- Optional 2X16 LCD display with stainless steel bezel and flat 24" (60cm) ribbon cable.
- If the distance to cover is more than 24" (60cm), an MDB display is available. This display connects into the MDB port.

### The FP-1 works with...

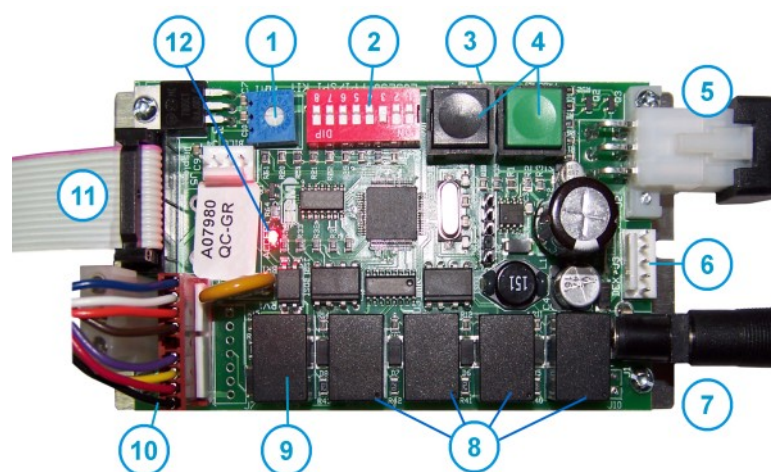
The FP-1 Conversion Kit will work with one or more of the following peripherals:

- Coin changer: (Coinco, Conlux, MEI, NRI)
  - MDB Level 2, 3-tube & 4-tube
  - MDB Level 3, 4-tube, 5-tube, & 6-tube
- Coin acceptor:
  - NRI G13 with its MDB adaptor. Please note that when using this acceptor, it is impossible to give back change (see Multi Vend parameter)
- Bill acceptor:
  - Most MDB bill acceptor of any country
- Cashless:
  - The majority of MDB cashless devices on the market. **(FP-1+ version only)**

### Note about the electrical power outside of North America.

Most power outlets outside of North America offer a 220-volt, 50Hz source. Even though the switching power supply supplied with the FP-1 is capable of working on such a power source, the FP-1 was NOT designed to work with such a voltage. Applying 220-volt to the FP-1 will automatically damage it.

**DO NOT USE THE FP-1 IN A 220-VOLT ENVIRONMENT !**



### Description of board

1. LCD display level adjustment (POT 1)
2. Price setting switches (SW 1)
3. Programming LED
4. Programming buttons
5. MDB connector (J2)
6. DEX connector (J3) FP-1+ version only
7. 24-volt DC input (J1)
8. Price Relays (RLY 1 to RLY 4)
9. Exact change relay (RLY 5)
10. Harness to machine (J6)
11. Flat ribbon to display (J5)
12. Accept Line detection LED (L6)

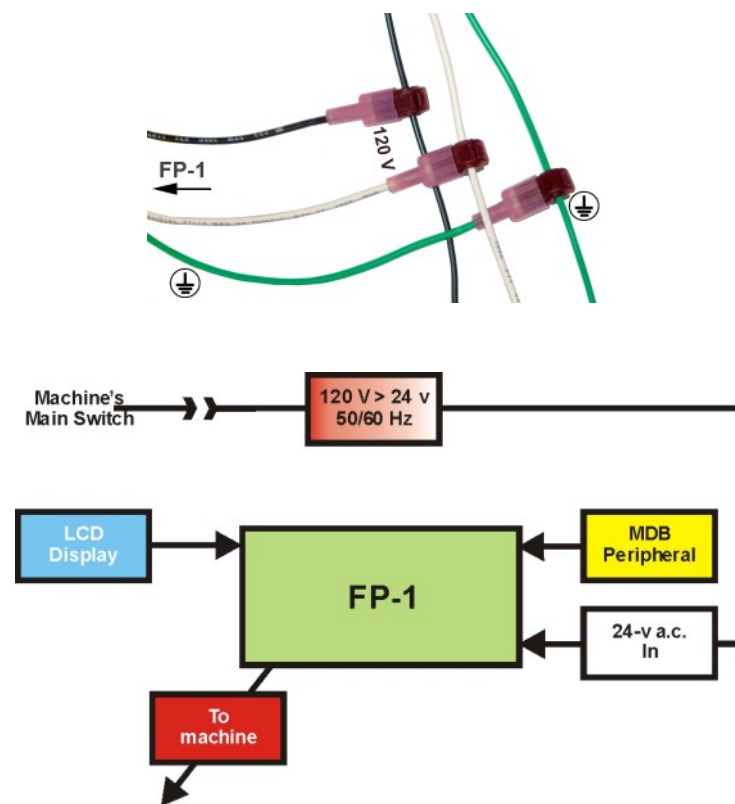
### Installing your FP-1 Conversion Kit into a Four-Price vending machine

Installing the FP-1 Conversion Kit does not require great technical skills. Just follow these simple instructions and it will take just few minutes. The FP-1 Conversion Kit can work in either a 24-volt or a 120-volt machine.

- Make sure your machine is in correct working condition and ready to dispense products.
- Disconnect the machine from the wall or shut off main power switch.
- Make sure there is no power in the machine before unplugging any element.
- Remove the Four-Price coin changer from its current location.
- Do not forget to remove the change from the tubes.
- Install the new MDB coin changer and fill the tubes.
- Find a place where you can fix the new circuit board and the new power supply. Make sure no harnesses or wires will interfere with the coin insertion and the coin return arm. Make sure the new board cannot move.
- Connect the power supply to the board.
- Connect the new MDB peripherals into the FP-1 Conversion Kit.
- Connect the primary side of the power supply to a 120-volt source located immediately **after the main switch** using the tap connectors provided. (see figure)
- Connect the 8+1-pin Jones plug into the four-price socket of the machine.
- Install the optional LCD display using the instruction coming with it.
- Secure the flat ribbon harness so that it does not interfere with the operation of the machine.
- Connect the flat ribbon in the proper socket on the new board.
- Once everything properly connected, apply power to the machine.
- Program your kit according to your specific requirements (language, basic price, vend price, etc.).
- Make some tests.

**!!! ATTENTION !!!**

Once power is applied to the machine and the new FP-1 energized, 120 volts can be present on the circuit. The 120-volt section is comprised between the price relay (#8 on image) and the harness to the machine (#10 on image). **BE CAREFUL!**



### Programming your FP-1

The following information applies to an FP-1 equipped with an LCD display. If you do not have the display, refer to the reverse of this sheet.

The display is a LCD 2-lines, 16-characters. It can be green or blue. The display can be permanent or portable only to program your FP-1.

### Price base - (or Programming the value of dipswitch #1)

(To skip, press on black.) As the FP-1 can work in many countries around the world, it must adapt to the price level in each country. To achieve this goal, we added a unique feature that enables you to set the basic value of switch #1. This basic value starts at \$0.05 and goes up to \$12.75. To enter the programming, shut down power to the FP-1 (or the entire machine). Press and hold both the black and green buttons on the FP-1 while applying power. Release the buttons when the display becomes blank. Price base becomes visible on the display. If the price base is not what you want, press on the green button to increase it. To decrease, press and hold the green button and press on the black. This setting wraps around. If you are at \$0.05 and wish to go up to \$12.75, it is faster to go backward. Once the correct value is visible on the display, press on the black button to confirm the new setting. You will also move to the next parameter.

Below is a figure showing the price combinations possible depending the setting of the Price base.

Price base	\$0,05	\$0,25	\$0,50	\$1,00	\$5,00	\$10,00	\$12,75
Switch 1	0,05	0,25	0,50	1,00	5,00	10,00	12,75
Switch 2	0,10	0,50	1,00	2,00	10,00	20,00	25,50
Switch 3	0,20	1,00	2,00	4,00	20,00	40,00	51,00
Switch 4	0,40	2,00	4,00	8,00	40,00	80,00	102,00
Switch 5	0,80	4,00	8,00	16,00	80,00	160,00	204,00
Switch 6	1,60	8,00	16,00	32,00	160,00	320,00	408,00
Switch 7	3,20	16,00	32,00	64,00	320,00	640,00	816,00
Switch 8	6,40	32,00	64,00	128,00	640,00	1 280,00	1 632,00
Max. Vend Price	\$12,75	\$63,75	\$127,50	\$255,00	\$1275,00	\$2550,00	\$3 251,25

### Language -

You have the choice between English, French, Portuguese, and Spanish. If it is not in your language, press the green button until you see the desire language. Confirm with black.

### Currency symbol -

You have the choice between the dollar sign (\$), the Euro sign (€) or none. Press on the green button to change it. Confirm with black.

### Multi vend -

Multi Vend enables you to keep the credits in the memory of the FP-1 so that the customer can make a second transaction. You can select Yes or No. If you choose No, change will be given back after each sale. If you choose Yes, the credits stay for another transaction (with an NRI G13 coin acceptor only for example)

### Cashless type - (visible only if you have version FP-1+)

Since there are now many types of cashless devices on the market, you must adapt the message on the display to match your system. You can have a swipe or insertion card type. You can also have a proximity card type. You can also have a cashless key or tag. Select the proper message to fit your cashless system. Cashless related messages will only be visible if a cashless device is detected upon powering up the FP-1.

### Token type - (visible only if token information is sent by changer on power up)

The coin changer can be programmed to accept tokens and the bill acceptor coupons. In both cases, you must decide to give a free vend or send a value to the FP-1. If you choose Free Vend, the FP-1 will allow a transaction to take place, no matter the price of the selection. If you choose Value, that value will be sent to the FP-1 and the customer will be able to make a transaction of equal value or less. If the value is less than the price of the selection, the customer can insert money to complete the transaction. In both cases, no change will be given back to the customer.

### Token value -

If you choose Value in the preceding step, you must assign that value here. Press on the green button to increase it. To decrease, press and hold the green button and press on the black. Once the correct value is visible on the display, press on the black button to confirm the new setting and the display will come back to Insert coins. This setting wraps around. If you are at \$0.00 and wish to go up to \$12.75, it is faster to go backward. Press on the black button to confirm. A value set at \$0.00 will make the coin changer accepting the token without sending any value to the FP-1

All parameters are now programmed. The display now says Insert money. You can now go to the price programming.

### Machine ID

It is possible to assign an ID to your machine. The ID in numeric between 000 and 999. This number will appear in the proper field of the DEX transfer. Press on the green button to change it and black to confirm.

### Price Program -

Before you start programming the vend prices, make sure the value of dipswitch #1 is at the proper Price base. Refer to **Programming the Price Base**.

Programming the vend prices is quite simple if you follow carefully these three steps.

To access the Price programming, press on the black button twice followed by the green button.

The **first step** is to place selections 1 to 4 (or A to D) on a price line. Disregard selections 5 and above for now. To do so, place selection #1 on PRICE LINE #1, selection #2 on PRICE LINE #2 and so on. (see illustration below). Assigning each selection to its real price will be done in step #3.

The number of selections and their real identification will vary depending the model of your vending machine.

...continue on the other side.

