

# Plcon Console Controller

User Reference Manual



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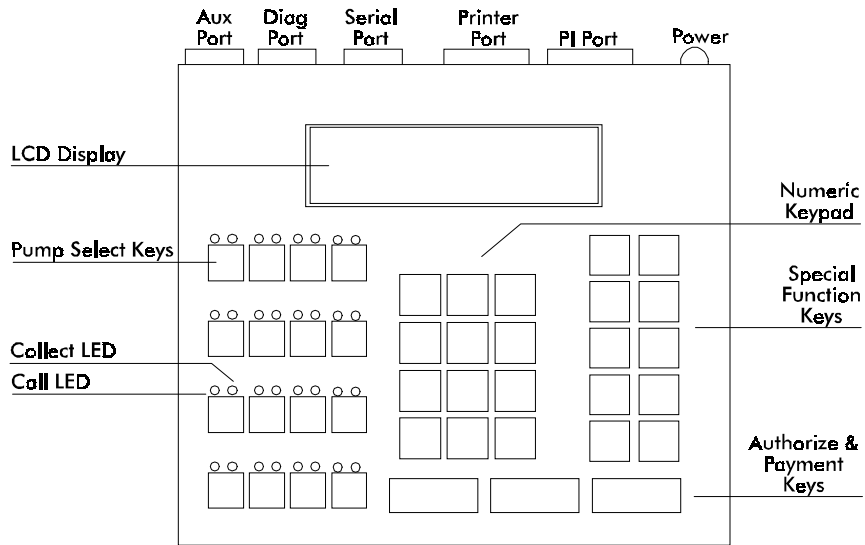
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**GENERAL INFORMATION & WARRANTY**

**General Information**

The PIcon is an economical, full-featured console designed to provide control of up to 16 fueling positions. While most consoles can only control one type of fuel dispenser, the PIcon may be configured to run any major brand electronic dispenser. This is accomplished through the use of brand-specific Progressive International (PI) DBoxes that contain the unique circuitry required to interface to each individual dispenser brand. An alternative to this solution is the use of configurator boxes, supplied by PI, along with the dispenser manufacturer's DBox.



**Diagram: PIcon Port and Keyboard Layout**

Your PIcon provides full features, yet is very simple to install and operate. Due to meticulous design of the keyboard and display layout, keystrokes are kept to a minimum during programming setup and normal operation modes.

Standard features provided by the PIcon for efficient control of your fueling dispensers include:

- C Full featured console which includes prepay/postpay, preset, drive-away alerts, stacked sale, cash/credit operation.
- C Management features including dispenser, shift and station totals, management security, prices programmed by product.
- C Easy to read LCD display.
- C Register style keyswitch for efficient operator entry.
- C Controls up to 16 fueling positions — including *all major electronic dispensers* and new blending pumps.
- C Audible alerts for call, drive-away and collect.
- C Memory backup to retain data in the event of power outage.
- C Built-in hardware clock to time stamp all reports.
- C Compact size allowing convenient counter-top positioning while utilizing a minimum amount of valuable counter space.
- C Standard printer interface for use with most low-cost printers.
- C Ease of installation — console wires directly into dispenser distribution boxes or PI DBoxes.

Prior to installation or operation of the PIcon, please review each section of this manual and other pertinent equipment manuals to familiarize yourself with the system.

## **Picon Manufacturer's Warranty**

Progressive International Electronics, Inc. (SELLER) warrants to the Purchaser of the Picon fuel control equipment manufactured by Seller against defects in material or workmanship for one (1) year from date of shipment. Seller will replace or repair defective parts or replace and issue credits to the Purchaser's account in accordance with the following Conditions of Warranty.

### CONDITIONS OF WARRANTY

1. Credit will be applied only when the completed warranty request form and the defective parts are received and inspected.  
**Decisions to repair or replace defective equipment are solely at the discretion of PIE.**
2. When parts shipments are made prior to receiving the required warranty request and defective parts, they will be billed to the Purchaser.
3. In all cases, approved warranty requests will be expedited by issuing the appropriate credit to the Purchaser's account and shipping replacement parts.
4. Credits will not be issued for parts and no cash refunds for warranty credits will be made.
5. All components and parts must be returned to the factory prepaid, and in turn, replacement components and parts will be returned prepaid by the factory.
6. Seller's warranty applies only if the equipment has been installed and used in accordance with Seller's instructions. The warranty is void if any unauthorized alteration or addition has been made to the equipment or if it has been subject to damage caused by abuse, misapplication, accident or improper operation.
7. The Seller's liability for any damages, including contribution and indemnification, arising out of or in any way connected with the supplying of the equipment or its use, shall not in any case exceed the cost of repair of the equipment as herein provided. Upon expiration of the warranty, all such liability, as well as any other liability, shall terminate.
8. Nothing contained herein shall make the Purchaser, its agents or employees, an agent or representative of Seller and Seller assumes no responsibility of any act, omission, representation or warranty by the Purchaser or anyone else except as expressly stated herein.
9. The final Decision as to the validity of any claims arising under the warranty shall be determined solely by the Seller.

THE FOREGOING WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OR MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WHICH EXCEED THE AFORESAID OBLIGATIONS AND ARE HEREBY DISCLAIMED AND EXCLUDED BY SELLER.

W A R N I N G

**Warning:** Installation must comply with the National Electrical Code, as well as Federal, State, Local and all applicable codes.

**Warning:** High voltages are present in this equipment. Disconnect all power before making installation to prevent personal injury or equipment damage.

**Warning:** Do not install PIcon units in a volatile, combustible or explosive atmosphere. All PIcon units must be protected from severe vibration, extreme temperatures and excessive humidity.

Any peripheral equipment is to be installed over a non-hazardous location.

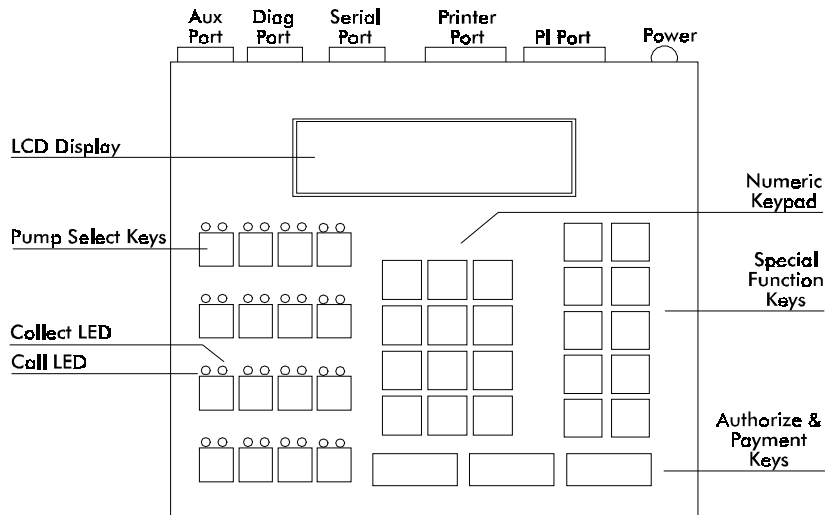
Any peripheral equipment connected to the PIcon must be UL listed and using standard RS232 or RS485 communication.

The PIcon **must** be plugged into a dedicated 115 VAC wall socket with bonded earth ground.

## OPERATION

### Introduction

In this section, all functions available to the cashier for operation of the PIcon are outlined. **Table: Key functions** on the following page provides brief descriptions of key functions. Also, refer to **Diagram: PIcon Port and Keyboard Layout** below for general locations of various keys, indicators and display.



**Diagram: PIcon Port and Keyboard Layout**

There are two types of operations for the cashier:

- ! **Pump control** — Initiated by pressing the appropriate pump select key, followed by the keys corresponding to the command for the PIcon to make upon that pump.
- ! **Select functions** — Provide the cashier access to the shift, time and date, operator shift report, shift change, and console deactivation functions.

Active Keys	
PUMP KEYS	Select pump number
AUTHORIZE	Authorize selected pump/Resume stopped pump
CASH PAID	Pay out the sale in cash
CREDIT PAID	Pay out the sale in credit
VOLUME	Display the volume of the sale
PPG	Display the price per gallon of sale
A/B	Toggle between the A & B sales
PUMP STOP	Stop an authorized pump/Stop all pumps (hold 5 seconds)
PRINT	Print a receipt
CHANGE	Show the change of a preset or prepay sale; also show the preset amount & clear incomplete prepay
GRADE	Set the grade for an authorization
MANAGER	Enter/exit program & report modes
SELECT	Refer to Operation Section, Special Functions

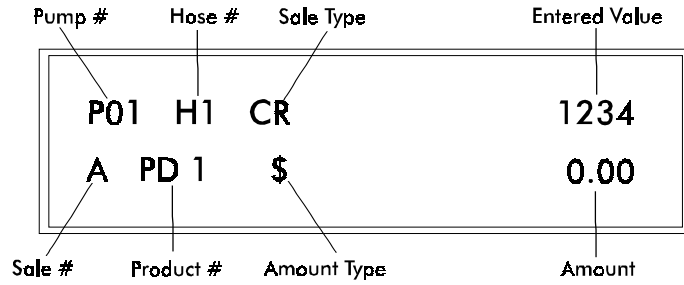
**Table: Key Functions**

## Display and Status Indicators

The LCD display provides the cashier with all sale information for the pump selected. It also provides data such as time/date and shift totals reports when using the select functions. Listed below in **Table: Display Data** are the various fields of data which may appear in the display area, along with a brief description of each field.

Display	Description
Pump #	Indicates the current/active pump #/fueling position. Further key entry, such as <i>authorization</i> or <i>payment</i> will apply to the current pump #.
Hose #	Indicates the active hose at a fueling position.
Sale Type	Indicates the method of payment selected for a sale — <i>cash (CA)</i> or <i>credit (CR)</i> .
Sale #	Indicates which sale is selected — <i>A</i> or <i>B</i> (current sale or stacked sale).
Product #	Indicates the product type for the displayed sale.
Amount Type	Indicates type of data being displayed in the amount field.
Amount	Indicates the value, dollar or volume of the active sale.
Entered Value	Displays any data entered on the numeric keypad.

**Table: Display Data**



**Diagram: Display Layout**

The LEDs above each of the pump select keys are the *status* indicators for that particular pump/fueling position. The green LED on the left indicates *call/in use*. The red LED on the right indicates *collect/stopped*. **Table: LED Indicators**, below, shows the various states these LEDs represent for each pump/fueling position.

GREEN LED	RED LED	STATUS
Fast Flash	—	Call for service
On Solid	—	Authorized
—	Slow Flash	Collect "A" Sale
—	On Solid	Pump Stopped
Fast Flash and	Fast Flash	Drive-Away
Slow Flash and	Slow Flash	Collect "A" and "B" Sales

**Table: LED Indicators for Pump/Fueling Positions**

## Sales

Authorization must be made for a sale as either a *Postpay*, *Preset Postpay*, or *Prepay* sale. **Table: Sales Procedure**, below, describes the sequence for completing each type of authorized sale.

NOTE: An actual key action is indicated by < \_\_\_ >

Sale Type	Procedure
Postpay	To authorize a pump for a Postpay/Fillup operation, press the appropriate <PUMP #> key and then press the red <AUTHORIZE> key. To pay out the sale on the console, press the <PUMP #> key. Press either <CASH PAID> or <CREDIT PAID> key. To print a receipt, press <PRINT>.
Preset Postpay	To authorize a pump for a preset amount, press the appropriate <PUMP #> key and then enter the preset amount on the numeric keypad. Press the red <AUTHORIZE> key. To pay out the sale on the console, press the <PUMP #> key. Press either <CASH PAID> or <CREDIT PAID> key. To print a receipt, press <PRINT>. (Note that the amount entered on the numeric keypad appears on the display in the ENTERED VALUE field.)
Prepay	To authorize a pump for a prepay sale, press the appropriate <PUMP #> key; then enter the amount paid on the numeric keypad. (Note that the amount entered on the numeric keypad appears on the display in the ENTERED VALUE field.) Press method of payment, <CASH PAID> or <CREDIT PAID> key; then the red <AUTHORIZE> key.

Table: Sales Procedure by Authorization Type

Plcon has the capability of displaying stacked sales ( $A/B$ ), with  $A$  representing the current sale and  $B$  representing the previous sale. The  $B$  (previous) sale may either be already paid out or waiting to be paid out.

If the transaction is a stacked sale ( $A/B$ ), it is important to select the correct sale with the **<A/B>** key before the method of payment — **<CASH PAID>** or **<CREDIT PAID>** key — is pressed. The status indicators show the state of a transaction, such as *call for service, collect*, etc. (Refer to the Quick Reference Guide for general sales procedures.)

Should it become necessary to stop all of the dispensers due to an emergency condition, press the red **<PUMP STOP>** button and hold for five seconds. This will place all of the dispensers in a stopped condition until the operator clears the emergency. This is accomplished by selecting each dispenser with the **<PUMP #>** key and then pressing the **<AUTHORIZE>** key.

## Select Functions

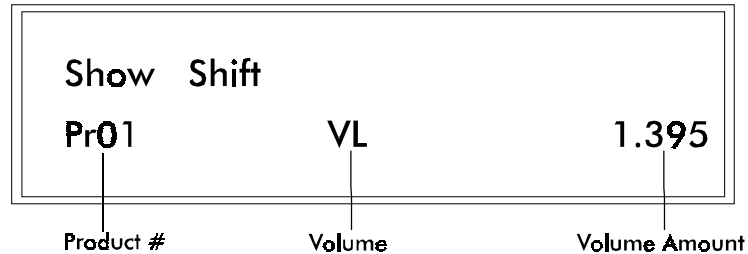
Listed below are the five special operator select functions, along with the key sequences required to execute them. Each key sequence begins with the operator pressing the <SELECT> key. (Note that the display will prompt you to enter a function key for the appropriate mode.)

Key Pressed	Resulting Action
<ENTER>	<i>Shows Current Shift Totals</i>
<PRINT>	<i>Prints Current Shift Totals</i>
<CHANGE>	<i>Performs Shift Change</i>
<SELECT>	<i>Shows Console Clock</i>
<PUMP STOP> (press and hold 5 seconds)	<i>Turns Off Console, Displays "OFF"</i>

Table: Select Key Functions

Select functions are accomplished by first pressing the <SELECT> key. The word *Function* appears in the display, prompting the operator to enter the key for the desired function.

**Show Current Shift Totals** — When prompted for *Function* pressing the <ENTER> key will begin to show current shift totals by first displaying the current volume shift totals for product 1.



**Diagram: Select Function, Show Current Shift Totals**

To view current cash shift totals, press the <CASH PAID> key. Current credit shift totals may be viewed by pressing the <CREDIT PAID> key. Press <VOL> to view current volume totals again.

To display current shift totals for additional product(s), continue to press the <ENTER> key. After exhibiting the current shift totals for the selected product, the display will return to the select function entry screen. If another select function is desired, it may be entered, or the select function mode may be exited by pressing the <MANAGER> key.

**Print Current Shift Totals** — At the *Function* prompt, press the <PRINT> key to print the current shift report.

After printing the current shift report, the display will return to the select function entry screen. If another select function is desired, it may be entered, or the select function mode may be exited by pressing the <CLEAR> key.

**Perform Shift Change** — To execute a shift change, simply press the <CHANGE> key at the *Function* prompt. When this has been accomplished, the PIcon changes the current shift total to zero. The last shift total is then stored as shift 1. At any time, there are four stored shift reports. They are the current shift, shift 1, shift 2, and shift 3, with shift 3 being the oldest. Please note that all shift reports are time/date stamped and contain a unique two-digit number that increments by one each time a shift change takes place.

Note: As a precautionary measure, the *Shift Change* function may only be implemented if current shift totals have been completely viewed or printed and if at least one hour has elapsed since the last shift change.

After performing shift change, the display will return to the select function entry screen. If another select function is desired, it may be entered, or the select function mode may be exited by pressing the <CLEAR> key.

**Show Console Clock** — The PIcon's built-in clock/calendar provides accurate time/date stamping on reports and sales receipts. After being prompted for *Function*, press <SELECT> to read the time and date.

Time and date will be displayed until another key is pressed. If another select function is desired, it may be entered, or the select function mode may be exited by pressing the <MANAGER> key.

**Turn Off Console** — At the *Function* prompt, press <PUMP STOP>. At this point, all LEDs are turned off and the word *Off* flashes on the display. Note that any fueling transactions that have already begun when the PIcon was turned off will be allowed to run to completion.

To turn the PIcon back on, enter the Operator or Manager PIN Code on the numeric pad and press the <ENTER> key. The default Operator PIN Code is set at the factory to 1111. The default Manager PIN Code is 2422. PIN Codes do not appear in the display as they are entered on the numeric keypad. (See the Program & Report Section of this manual for instructions on changing the PIN Codes.)

**PROGRAM & REPORT****Introduction**

The Program & Report Section describes the operation and resulting information provided by the PIcon *program and report functions*. These functions allow the manager to configure the PIcon for the specific type of operation desired and to retrieve important data collected. This management information is protected by the use of a unique Manager PIN Code (factory default — 2422). This Manager PIN Code may be changed by the manager at any time through the use of one of the program and report functions. Manager Modes 10 and 11 may be accessed through operator's PIN code (default 1111).

As you review this section of the manual, please refer to **Diagram: PIcon Key Location** for general locations of the various keys, indicators and display. While using program and report functions, the fields on the display will vary from function to function, depending upon the type of data being displayed or requested.

Refer to Program & Report in the Quick Reference Guide.

## PIN Code Access

To access PIcon program and report features, a sequence utilizing a valid PIN Code must first be entered. Access is divided into two categories — manager and operator. The manager, using a Manager PIN Code, has access to **all** program and report functions. Report functions (Modes 10 and 11) are also available to the operator, who uses an Operator PIN Code. Manager and operator access are described below.

### Manager Access

Entry of the correct Manager PIN Code allows access to all program and report functions. First, press <MANAGER> key. The display will prompt you to enter your PIN Code. Enter this PIN Code on the numeric keypad. (This number, with a maximum of four digits, is stored in the PIcon. Its purpose is to limit access to PIcon program and report data. The number **2422** is the factory default value for the Manager PIN Code.) Next, press the <ENTER> key. *M 0* will appear in the display, prompting you to enter the desired function mode number on the numeric keypad. (See mode descriptions.) Press <ENTER> again to generate the requested program & report function sequence. At this point, if you wish to return to the operator mode, press the <MANAGER> key to exit from manager modes.

## Operator Access

Access to report functions is accomplished through the entry of a valid Operator PIN Code. First, press the **<MANAGER>** key. You will be prompted by the display to enter your PIN Code. Enter your Operator PIN Code on the numeric keypad. (This number, with a maximum of four digits, is stored in the PIcon. Its purpose is to limit access to PIcon report data. The number **1111** is the factory default value for the Operator PIN Code.) Next, press the **<ENTER>** key. *M 0* will appear in the display, prompting you to enter the desired function mode number on the numeric keypad. Press **<ENTER>** again to generate the requested program & report function sequence. Press the **<MANAGER>** key to exit current mode.

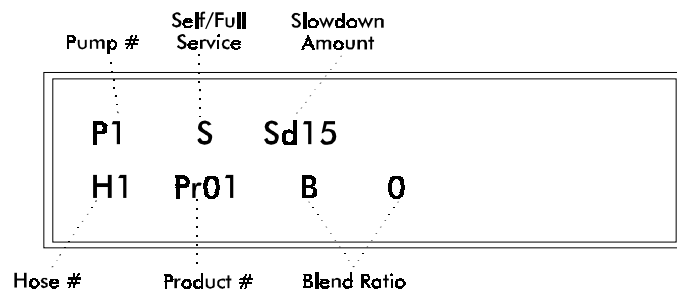
## Mode Descriptions

The sequence for manager access **must** be completed before programming features can be utilized through the various program modes. The sequence for either manager access or operator access allows generation of reports (Modes 10 and 11). Each set of instructions for the following program and report modes assumes that the appropriate manager/operator access has already been executed and that the *mode number (M 0)* prompt now appears in the display. To operate the PIcon, Modes 1 and 2 (at least) must be programmed.

### Mode 1 — Pump Setup Information (*Manager only*)

In Mode 1, hose selection, product, service, blend and slowdown amount are entered for each pump/fueling position controlled by the PIcon. After being prompted for mode number (*M 0*), press <1> on the numeric keypad and then press <ENTER>. You are now in Mode 1.

To initiate pump programming, press the <PUMP #\_\_> key for the first pump/fueling position at the site (usually Pump #1).



**Diagram: Display for Manager Mode 1**

**Hose Selection** — After the pump number is chosen, *Hose 1* is indicated on the display. From this point, the following parameters may be set for Hose 1. If programming a multi-product dispenser, parameters must be set for all hoses.

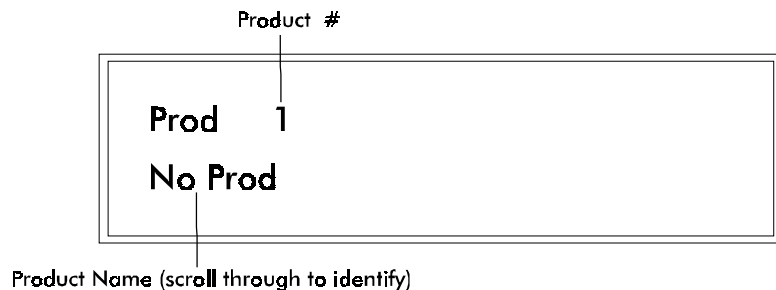
- ! **Product** — Press the <**PRODUCT**> key to scroll to the desired product for the current hose displayed. During this step, pressing the <**AUTHORIZE**> key will clear the product number for reentry.
- ! **Service** — To select service type, press the <**CHANGE**> key to toggle between full- or self-service for the specified pump. Setting service type on one hose selects it for the entire pump.
- ! **Blend** — If the dispenser is a blending dispenser, on the numeric keypad enter the amount, in percent of hose 1, to be dispensed by the selected hose. Press <**ENTER**>. (Default is set at 0.) Remember that any data entered on the numeric keypad will appear on the display.
- ! **Slowdown Amount** — To set slowdown amount, enter new value on the numeric keypad. Press <**PUMP STOP**>. Setting slowdown amount on one hose sets it for the entire dispenser. Default is 15 cents. Maximum is 99 cents.

If the dispenser is a multi-product dispenser, press <**SELECT**> to scroll to the next hose to be programmed. Follow this procedure to program each hose of each dispenser at the site.

To exit Mode 1, press the <MANAGER> key. The PIcon display returns to *M 0*, the mode entry prompt. To exit programming mode completely, press the <MANAGER> key again. The PIcon will return to operator mode.

## Mode 2 — Product Information *(Manager only)*

In this mode, Product Name, Cash PPU and Credit PPU for each product at the site are programmed. To enter this mode from the *M 0*, mode number prompt, press <2> on the numeric keypad and then press <ENTER>. You are now in Mode 2.



**Diagram: Display for Manager Mode 2**

**Product Name** — The display now prompts for information about product #1. To assign a product name such as UL REG or DIESEL to this product, press the <GRADE> key until the desired product name is presented in the display. If you wish to just view the product name already assigned, press the <SELECT> key and the name will appear in the display.

**Cash PPU** — To set the Cash PPU for a product, enter the desired PPU on the numeric keypad and press the **<CASH PAID>** key. The three decimal places are assumed.

**Credit PPU** — To set the Credit PPU for a product, enter the desired PPU on the numeric keypad and press the **<CREDIT PAID>** key. The three decimal places are assumed.

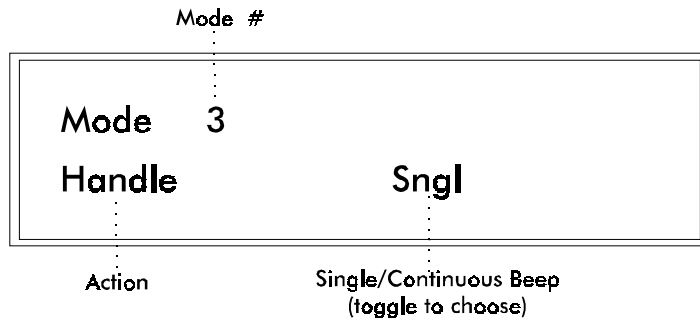
As the Cash and Credit PPUs are entered, numeric key errors may be erased by pressing the **<CLEAR>** key and reentering the data. Also, Cash and Credit PPUs may be viewed by pressing the **<CASH PAID>** or **<CREDIT PAID>** key. The value will appear in the display. Note: Both cash and credit prices must be programmed for each product — even if prices are the same.

To proceed to the next product number to be programmed, press the **<ENTER>** key. Follow this procedure for each product type at the site.

Exit Mode 2 by pressing the **<MANAGER>** key. The PIcon display returns to *M 0*, the mode entry prompt. To exit programming mode completely and return to operator mode, press the **<MANAGER>** key again.

### Mode 3 — Beeper Settings *(Manager only)*

Mode 3 is used to program single or continuous beeps for Handle, Collect and Drive-Away. (Note: The console defaults to a single beep unless set otherwise.) To enter Mode 3 from *M 0*, the mode number prompt, enter <3> on the numeric keypad and press <ENTER>.



**Diagram: Display for Manager Mode 3**

**Handle/Call for Service** — The display first will prompt for selection of the style of beep associated with a Handle/Call for Service. To change the style of beep, press the <SELECT> key and toggle between *single* and *continuous*. To proceed to the next option setting, press <ENTER>.

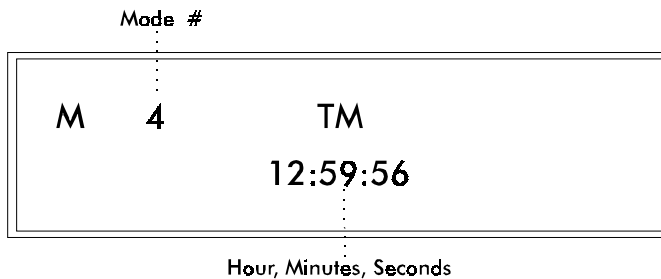
**Collect** — The display now prompts for selection of the style of beep associated with a Collect condition. To change the style of beep, press the <SELECT> key and toggle between *single* and *continuous*. To proceed to the next option setting, press the <ENTER> key.

**Drive-Away** — The display now prompts for selection of the style of beep associated with a Drive-Away condition. To change the style of beep, press the <SELECT> key and toggle between *single* and *continuous*.

Exit Mode 3 by pressing the <MANAGER> key. *M 0*, the mode entry prompt, will appear on the display. To exit programming mode completely and return to operator mode, press the <MANAGER> key again.

#### Mode 4 — Clock/Calendar (*Manager only*)

Mode 4 allows the setting of time, date and year. To enter mode 4 from the *M 0*, mode number prompt, press <4> and press <ENTER>. The PIcon is now in programming Mode 4.



**Diagram: Display for Manager Mode 4**

**Time** — Time already set in the PIcon will be displayed.

To change the time, enter the new time on the numeric keypad in 24 hour format. The new time will appear in the display as it is entered. Seconds are not entered and will be automatically set as 00. Press <ENTER> and the time will be updated in the PIcon. Press <ENTER> again to proceed to program the date.

**Date** — Date already set in PIcon will be displayed under *DT*. You may change the date by entering the new date on the numeric keypad in mmdd format. The new date will appear in the display as it is entered. Press <ENTER> and the date will be updated in the PIcon. Press <ENTER> again to proceed to program the year.

**Year** — Year already set in PIcon will be displayed under *YR*. Date may be changed by entering the new year on the numeric keypad in four digits. The new year will display as it is being entered. Press <ENTER> and the year will be updated.

To exit Mode 4, press the <MANAGER> key or the <ENTER> key. *M 0*, the mode entry prompt, will appear on the display. To exit programming mode completely and return to operator mode, press the <MANAGER> key again.

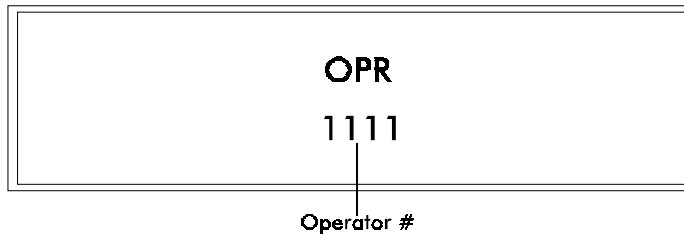
## Mode 5 —Program Operator/Manager PIN Codes

(Manager only)

WARNING: Care should be observed when using this mode.

If the PIN Code is altered, be sure to make note of the new PIN Code and save in a safe location.

Mode 5 allows the setting of Operator PIN Codes and Manager PIN Codes. To enter this mode from the *M 0*, mode number prompt, press <5> and press <ENTER>. The PIcon is now in programming Mode 5.



**Diagram: Display for Manager Mode 5**

**Operator PIN Codes** — The display will show the existing Operator PIN Code under *OPR*. (The default Operator PIN Code is **1111**.) To change the code, enter the new number (up to 4 digits) on the numeric keypad and press <ENTER>. The new Operator PIN code will appear on the display. To proceed to program Manager PIN Codes, press <ENTER> again.

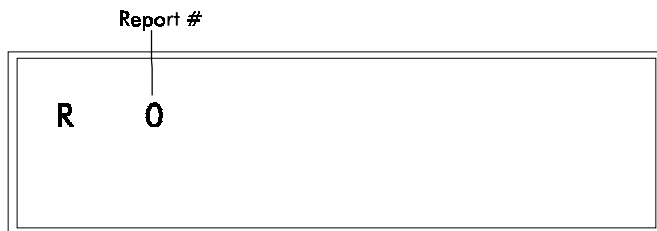
**Manager PIN Codes** — Under *MGR*, the display will show the existing Manager PIN Code. (The default Manager PIN Code is **2422**.) To change the code, enter the new number (up to 4 digits) on the numeric keypad and press **<ENTER>**. The new Manager PIN Code will appear on the display. Pressing **<ENTER>** again will take you back to Operator PIN Codes.

To exit Mode 5, press **<MANAGER>**.

**Modes 6 - 9 are reserved.**

### **Mode 10 — Read Reports** (*Manager/Operator*)

In Mode 10, totals reports may be generated and displayed. To enter this mode from the *M 0*, mode number prompt, enter **<10>** on the keypad and press **<ENTER>**.



**Diagram: Display for Manager Mode 10**

The display will show an *R 0*, prompting you to enter a report type code. From the following reports, select the one you would like displayed.

- 1 Resettable Totals
- 2 Non-Resettable Totals
- 3 Shift 0 Totals (current shift)
- 4 Shift 1 Totals
- 5 Shift 2 Totals
- 6 Shift 3 Totals
- 7 Polled Pump Totals

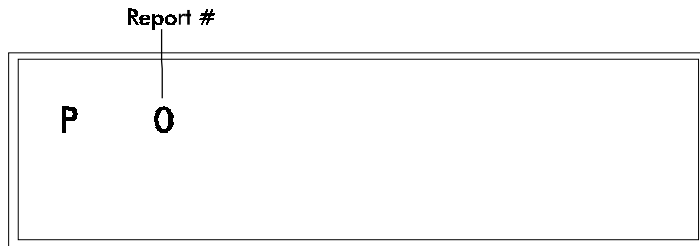
Select the report number and enter it on the PIcon keypad; then press <ENTER>. The beginning data for the report is shown in the display. Use the following keys to scroll through the report.

<ENTER>	Display next product totals
<VOLUME>	Display the volume total
<CASH PAID>	Display the cash total
<CREDIT PAID>	Display the credit total
<MANAGER>	Exit Mode 10

## Mode 11 — Print Reports/Program Print Header

*(Manager/Operator)*

Mode 11 enables reports to be generated and printed on the printer attached to the PIcon. To enter this mode from the *M 0*, mode number prompt, enter <11> on the numeric keypad and press <ENTER>.



**Diagram: Display for Manager Mode 11**

*P 0* will be displayed, prompting you to enter a report type code. Use the following table to select which type of report you would like printed by the PIcon.

(If no printer is connected, display will read *NOT ON LINE.*)

- 1 Resettable Totals
- 2 Non-Resettable Totals
- 3 Shift 0 Totals (current shift)
- 4 Shift 1 Totals
- 5 Shift 2 Totals
- 6 Shift 3 Totals
- 7 Polled Pump Totals
- 8 Console Program Information
- 9 Print Header — Under Print Header, the print header for the printer receipt is created and edited.

For printing reports 1-8, select the report number, <1> through <8>, and enter it on the PIcon keypad. Then press <ENTER>. Data for the report will be printed. If you wish to print additional reports, select another report option.

Initiate programming of Print Header by pressing <9> and then <ENTER>. The display shows the beginning information for the printer header. If your header has not been programmed or has been cleared, the cursor will prompt you for your first character entry. (Refer to **Table: Print Header Character Codes**, at the end of Mode 11 description, for a numeric code which represents the characters available for your use on the printer header.) Determine the character you wish to place in the first position of the header and look up the numeric code. Enter this numeric code on the keypad and press <ENTER>. The character will appear on the display, and has been saved in memory. For each subsequent character, follow the sequence described above.

There are two special numeric codes for the header: <10> indicates a *new line* in the header; <01> is the code for *end of header*. Enter the *new line* code at the point where the printer should cease printing on the current line and go to the beginning of the next line. The *end of header* code is entered after the entire header is entered and will tell the PIcon that no more characters are needed in the header.

Special editing features are available for use under Print Header:

<**ENTER**> without entering a numeric code — The display cursor will increment to the next character in the header.

<**SELECT**> without entering a numeric code — The display cursor will go back one character in the header.

<**CHANGE**> without entering a numeric code — The entire printer header will be cleared.

<**PRINT**> without entering a numeric code — The printer will print the header that is programmed.

<**MANAGER**> — Exit Print Header programming.

Press <**MANAGER**> to exit Mode 11.

Print Header Character Codes													
01 = end of header						10 = new line							
0	48	F	70	U	85	j	106	y	121	-	45	<	96
1	49	G	71	V	86	k	107	z	122	.	46	{	123
2	50	H	72	W	87	l	108	space	32	/	47		124
3	51	I	73	X	88	m	109	!	33	:	58	}	125
4	52	J	74	Y	89	n	110	"	34	;	59	~	126
5	53	K	75	Z	90	o	111	#	35	<	60		
6	54	L	76	a	97	p	112	\$	36	=	61		
7	55	M	77	b	98	q	113	%	37	>	62		
8	56	N	78	c	99	r	114	&	38	?	63		
9	57	O	79	d	100	s	115	'	39	@	64		
A	65	P	80	e	101	t	116	(	40	[	91		
B	66	Q	81	f	102	u	117	)	41	\	92		
C	67	R	82	g	103	v	118	*	42	]	93		
D	68	S	83	h	104	w	119	+	43	^	94		
E	69	T	84	i	105	x	120	,	44	_	95		

**Table: Print Header Character Codes**

**Mode 12 — Clear Resettable Totals** (*Manager/Operator*)

Mode 12 is used to reset resettable totals by clearing them to zero. To enter this mode from the *M 0*, mode number prompt, enter <12> on the keypad and press <ENTER>.



Press CLEAR to  
Reset Totals

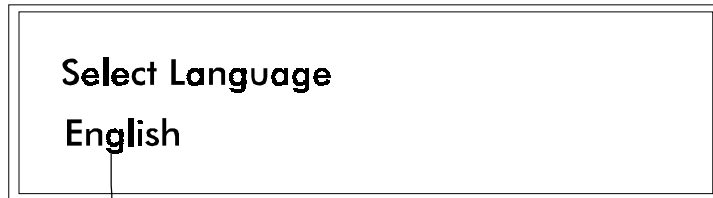
**Diagram: Display for Manager Mode 12**

The display will show *Press Clear*. If you wish to zero all resettable totals, proceed by pressing <CLEAR>.

Press any key to exit Mode 12.

**Mode 50 — Select Language** (*Manager only*)

To enter this mode from the *M 0*, mode number prompt, enter <50> on the keypad and press <ENTER>. Press <SELECT> to scroll through the languages available. Language selection pertains to printed reports and some display prompts.



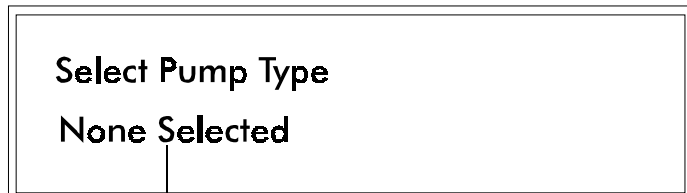
Language  
(scroll through to choose)

**Diagram: Display for Manager Mode 50**

Press <MANAGER> to exit Mode 50.

### Mode 51 — Select Port and Pump Type (*Manager only*)

To enter this mode from the *M 0*, mode number prompt, enter <51> on the keypad and press <ENTER>. The default, indicated on the screen, is *P* for port and *None Selected* for pump type.



Pump Type  
(scroll through to choose)

**Diagram: Display for Manager Mode 51**

**Select Pump** — To select the pump brand, press <SELECT> to scroll through the brands, stopping when your pump's brand name appears.

Press <MANAGER> to exit this mode. You will be prompted

for the option of clearing memory back to factory defaults.  
Press <**CLEAR**> to clear all totals or <**MANAGER**> to  
decline this option and exit the mode. The PIcon will reset.

## INSTALLATION

### **Introduction**

The Installation Section contains instructions for installing the PIcon to electronic fuel pump computers.

Instructions for installing or servicing electronic fuel pumps or dispensers are not included in this manual. (See manufacturer's manual specific to each particular product for installation/servicing instructions.)

Read the entire installation section of this manual before attempting to install the PIcon.

If further assistance is required, please contact:

PROGRESSIVE INTERNATIONAL ELECTRONICS, INC.

2422 Atlantic Avenue

Raleigh, North Carolina 27604

Phone (919) 821-1323

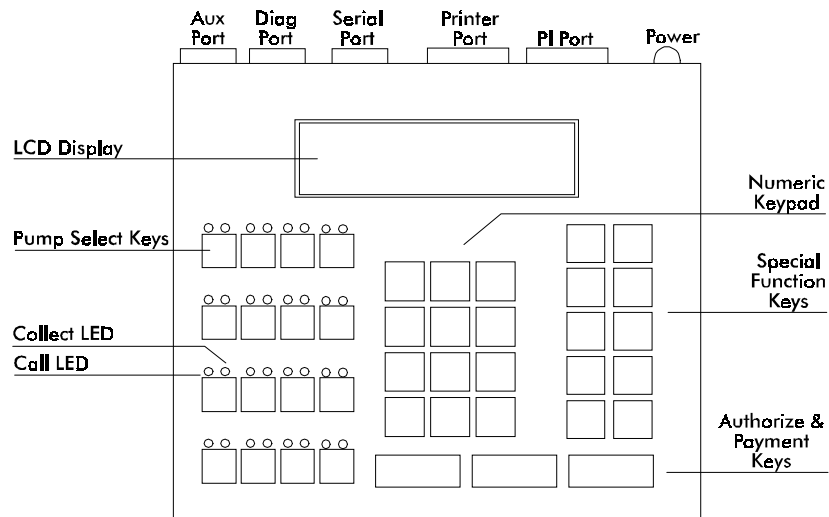
FAX (919) 821-1325

web PIE-CORP.COM

email corp@pie-corp.com

## General Installation Guidelines

The basic PIcon system consists of several components — the console interconnect box and cables. Refer to **Diagram: PIcon Port and Keyboard Layout**, which shows the various connections of the PIcon system, including the port for optional printer.



**Diagram: PIcon Port and Keyboard Layout**

To install the PIcon:

1. Place the console at the checkout counter of the station.
2. If using the PI DBox, refer to the PI DBox Installation Guide for detailed installation instructions. Attach the PIcon system to the dispenser data distribution equipment for the appropriate pump type.
3. If a printer is to be used with the PIcon, attach the printer cable to the 36-pin connector on the back of the printer and the other end to the 15-pin serial port connector on the back of the console.
4. If using the PI Configurator and the dispenser manufacturer's DBox, refer to the PI Configurator Installation Guide and the dispenser manufacturer's DBox installation guide for detailed instructions. Mount under the counter or on a wall adjacent to the console, not more than five feet away. Using the PIcon cable, connect the configurator to the PIcon, connecting to the PIcon's PIport.
5. Upon completion, apply power to all components of the PIcon system and commence programming, as outlined in the Program & Report section of this manual.

## Installation Warnings

**Warning:** Installation must comply with the National Electrical Code, as well as Federal, State, Local and all applicable codes.

**Warning:** High voltages are present in this equipment. Disconnect all power before installing to prevent personal injury or equipment damage.

**Warning:** Do not install PIcon units in a volatile, combustible or explosive atmosphere. All PIcon units must be protected from severe vibration, extreme temperatures and excessive humidity.

Any peripheral equipment is to be installed over a non-hazardous location.

Any peripheral equipment connected to the PIcon must be UL listed and using standard connection communication.

The PIcon **must** be plugged into a dedicated 115 VAC wall socket with bonded earth ground.

**Diagnostics**  
**PIcon Internal Diagnostics**

*Refer to our web site or call Progressive International  
Electronics for more comprehensive diagnostics.*

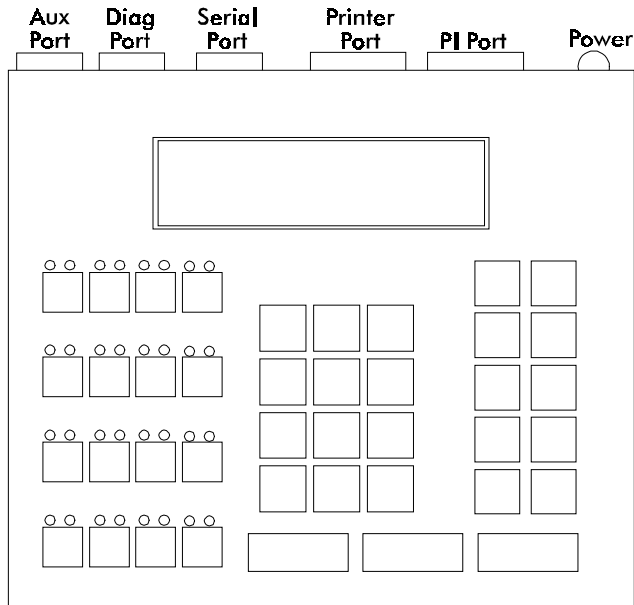
919 821-1323

[www.pie-corp.com/picon/diagnostics](http://www.pie-corp.com/picon/diagnostics)

The PIcon has on-board diagnostics which are helpful in solving problems encountered in the field. Below are a few of the standard diagnostic functions:

- ! Show Dispenser Information
- ! Display Version Numbers
- ! Monitor a Port
- ! Program Print Header

To access diagnostics, a computer running a terminal emulation software such as Procomm or Hyperterm for Windows is required. The diagnostic port is a serial port with the following connection parameters. Note: A standard 9 pin serial cable is used to connect the terminal device to the diagnostic port, not a null modem cable. See **Diagram: PIcon Port Layout** for connector locations.



**Diagram: PIcon Port Layout**

!	Baud Rate	57,600
!	Data Bits	8
!	Parity	No
!	Stop Bits	1
!	Flow Control	None

After connecting to the diagnostics port, power up the PIcon, type a question mark (?). A menu will appear, displaying the various diagnostic functions available. To select a function, type the letter shown in the menu. Some features will prompt for additional information. To exit a diagnostic function, press the escape key. The display will show a diagnostic prompt, waiting for another command from the user. Any time a prompt is shown, a question mark may be entered to display the menu.