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GUARDIAN

Models Included:

GXP, BX, BE and
DLR

Operating Instructions

8M00585 REV. 3

Standard Change-Makers, Inc.
Indianapolis, Indiana

One Year
Limited Product Warranty

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1.0 INTRODUCTION

Dear Valued Customer,

Thank you for your recent Guardian XP (GXP) Entry System purchase from Standard Change Makers, Inc.

Within this manual you find Operating Instructions for the following products.

GXP

GXP - BX

GXP - BE

GXP - DLR

You will also find instructions for 3rd party products that we use within our GXP Model Series. For further information regarding these 3rd Party products, you should contact those Manufactures directly.

Again, thank you for choosing Standard Change Makers, Inc as your Carwash business partner.

If you have questions regarding our GXP products, please contact our offices at 1-800-968-6955

Standard Change Markers Staff

2.0 QUICK START GUIDE

Your machine has been shipped preprogrammed from the factory. All settings will be programmed to the factory default unless otherwise specified at the time of order. The majority of new machine owners need only read this section in order to learn the basic installation and operating features of your machine.

Not all of the features shown in this manual are available in every model. Software versions that have an E at the end (x.xxxE) support the email settings. **The E version of software does not support WashCard, WashGear and SitePRO.**

!!!! CAUTION !!!!

Always turn off the main power switch in the cabinet before adding or removing a module. Failure to do so can result in corrupt data and premature component failure.

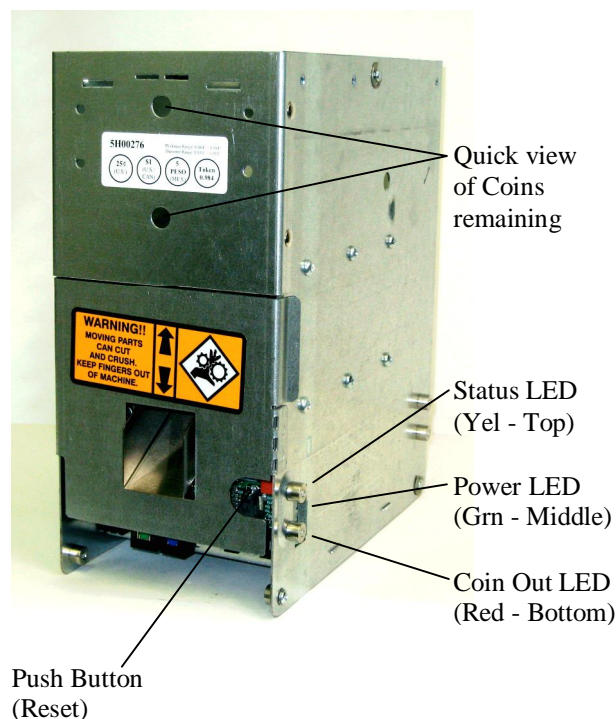
2.1 Coin Dispenser

2.1.1 Loading The Coin Dispenser

Loading the coin dispenser is a simple task. For coins contained in a bank bag, grasp the neck of the bank bag and twist it to choke the mouth of the bag. Invert the bag and insert the neck of the bag into the top of the coin dispenser. Loosen your grip on the bag neck slowly, letting coins feed down into the dispenser. The table below shows a convenient filling level for the various standard coin dispensers. When possible, you can turn your bank bags inside out and lessen the chance of small strings and threads from accumulating in your coin dispenser. Clean coffee cans or plastic pails can also be used to fill the coin dispensers.

<u>Type</u>	<u>No. of Coins</u>	<u>Value</u>
Quarter Dispenser	2,000	\$500
Dollar Dispenser	1,500	\$1,500

Modular Coin Dispenser



2.1.2 Emptying The Coin Dispenser

The majority of coins in a dispenser can be removed from the hopper using the *bulk dump* method. Bulk dumping refers to the manual method of tilting the coin dispenser forward in order to empty coins from a dispenser into a container. A few coins will remain in the dispense disk following a *bulk dump*; these coins can be removed by performing an *electronic dump*.

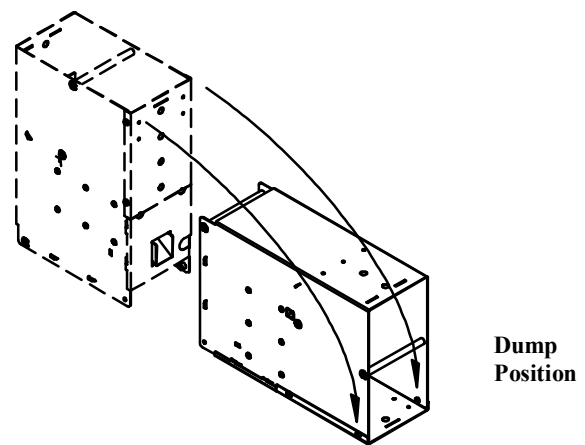
CAUTION

As a safety precaution you should never place your fingers in or near the coin dispense chute or in the coin storage area of the coin dispenser when power is applied to the dispenser.

Bulk Dump Method

Bulk dumping is performed the same way for all standard capacity (3200 quarters) coin dispensers. Do not use the bulk dump method to empty a high capacity hopper unless it has only 30% or less of the coins remaining. Coin dispensers in front load machines tilt forward, and dispensers in rear load machines tilt back. Always **TURN POWER OFF** before bulk dumping a hopper for safety purposes. To tilt the coin dispenser pull forward at the top edge of the dispenser. There is a handle in the middle of the opening to assist in bulk dumping.

Coin Dispenser – Bulk Dump



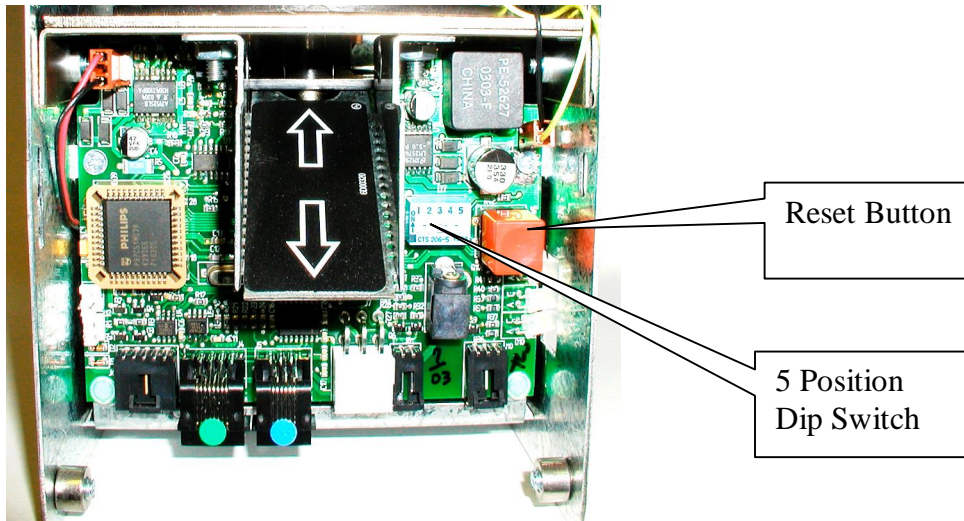
Electronic Dump - The coin dispenser must first be in a "Sold Out" condition and not in error. This condition occurs when the remaining coins are insufficient to complete a vend for a large denomination bill. The yellow diagnostic LED will be blinking at a slow steady pace indicating a Sold Out condition. To begin, turn the machine power off, then back on. Wait for the machine's Out Of Service lamp to change from the constant ON state to a BLINKING or OFF state. Make sure that the dispenser is flashing a dispenser sold out code. If any other flash code is shown when pressing the red *Push Button* it will reset the dispenser. You will have to power cycle the dispenser again. Next, press and release the *Push Button* (see diagram below for location). The dispenser will begin dispensing within 5 seconds. The coin dispenser will stop when all coins have been cleared. Note: **The *Push Button* must be pressed within 5 minutes of the time the power was turned off / on to the machine.**

2.1.3 Programming the Coin Dispenser

If for any reason it becomes necessary to change the denomination of the coin to be dispensed, you must first contact a factory authorized service center to determine if the hopper can dispense the new coin size (diameter & thickness). If it can, then you need only to change the DIP switch setting on the hopper dispenser board to program the hopper for the new coin value. Once this setting has been made, press the reset button to enter in that value. The DIP switch located on the hopper control

board is used to identify the value of coin the hopper is to dispense. The table below shows the setting for each coin value. Also, note that the token setting is also included in the table.

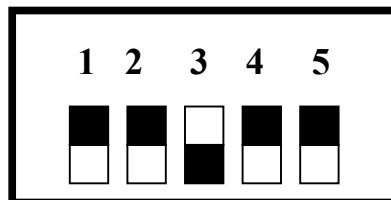
If you have changed the hopper value, you will need to reprogram your Button Settings from the main menu of the Guardian XP Control Module. This is necessary so that the Guardian XP will return the correct change for any refund due.



DISPENSER VALUE SETTINGS

Value	SW1	SW2	SW3	SW4	SW5
Token	DOWN	DOWN	DOWN	DOWN	DOWN
\$.05	DOWN	DOWN	DOWN	DOWN	UP
\$.10	DOWN	DOWN	DOWN	UP	DOWN
\$.20	DOWN	DOWN	DOWN	UP	UP
\$.25	DOWN	DOWN	UP	DOWN	DOWN
\$.50	DOWN	DOWN	UP	DOWN	UP
\$1.00	DOWN	DOWN	UP	UP	DOWN
\$2.00	DOWN	DOWN	UP	UP	UP
\$5.00	DOWN	UP	DOWN	DOWN	DOWN
\$10.00	DOWN	UP	DOWN	DOWN	UP
\$20.00	DOWN	UP	DOWN	UP	DOWN
\$50.00	DOWN	UP	DOWN	UP	UP

If you wish to use a value not in this table please see Appendix C to set the value. When done please set all the switches in the dispenser down to use this custom value. Usually this is done for tokens.



Default Settings
(quarters)

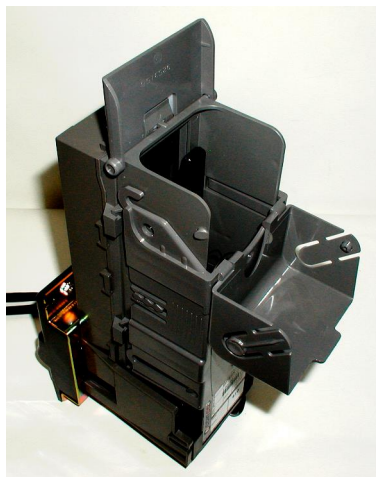
2.2 Removing Bills From The Bill Acceptor Bill Box

The bill box is attached to the rear of the bill acceptor. Each bill box will have an access door that can be easily opened to allow the accepted bills to be removed. The location of the access door varies depending on the bill acceptor model, yet all are easily viewable. See the pictures below for the common access door locations.

Mars Acceptor



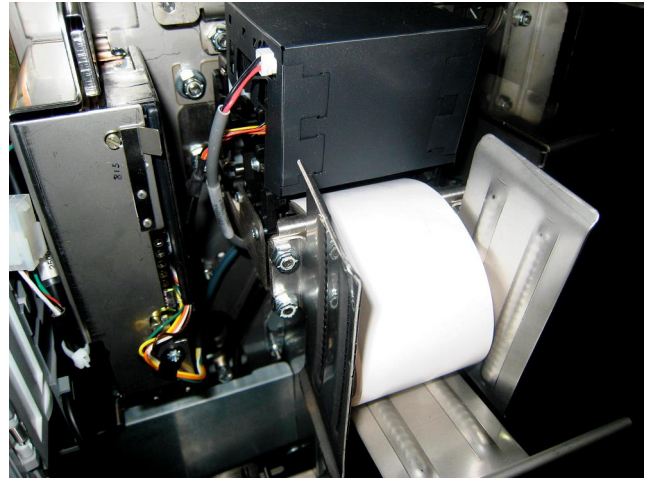
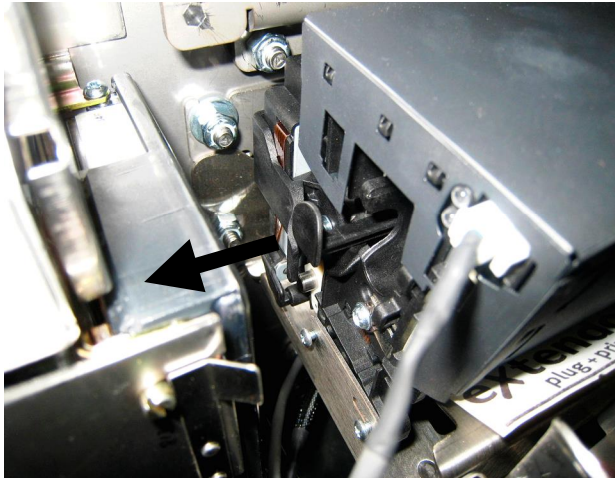
Coinco Acceptor



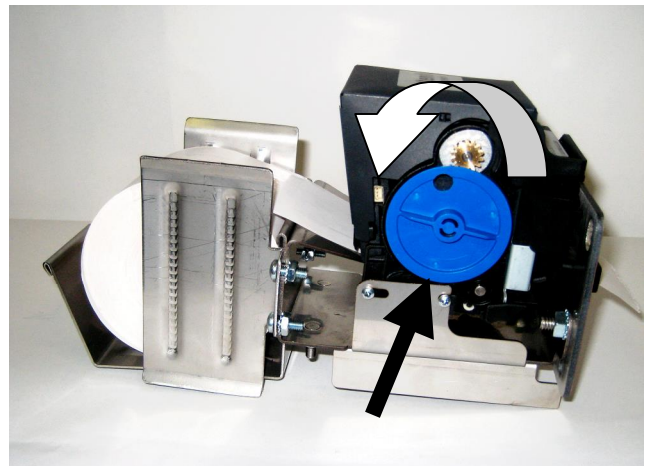
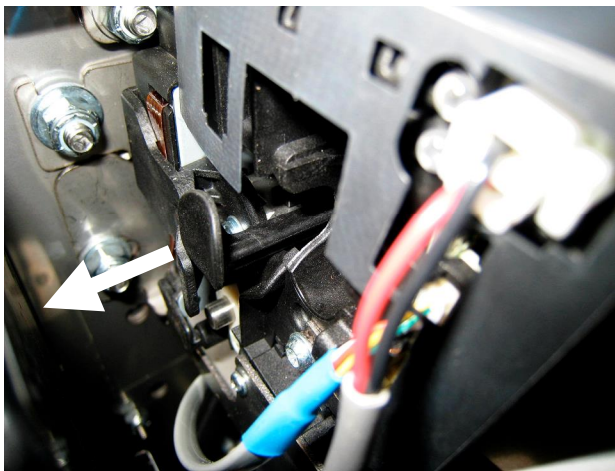
For operational features and maintenance please refer to the bill acceptor manual.

2.3 Loading Paper In The Printer

Automatic Loading With Power On ó Pull the printer plunger out and load paper in. When the printer senses the paper it will pull the paper in and print the hardware settings of the printer. This is a function of the printer and not the Guardian. If you do not see anything printed you have the paper inserted upside down. See photos below.



Manual Loading With Power Off ó Pull the plunger out and load paper in. At the same time rotate the large blue knob counterclockwise to pull the paper in. See photos below.

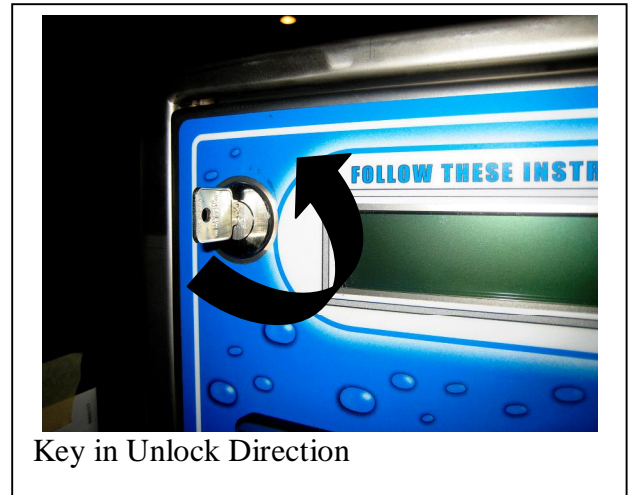


Note ó Push plunger in to remove paper. **The plunger has to be pulled all of the way out for normal operation.**

The thermal paper to use should be two inches wide and thermal sensitive on the outside.

2.4 Crank Lock Operation

The crank lock is quick and easy access to the interior of the cabinet with maximum security. To remove the plug locks it is only necessary to insert key and rotate ¼ turn. Next turn the wrench handle counter clockwise until it disengages from the interior lock mechanism and then pull the door open. To lock the door, close door and turn the crank lock handle clockwise until door is closed tight. The crank lock handle can then be removed from door and replaced with plug locks. See photos below of lock bolt wrench and plug locks.



SUGGESTION: Place the extra key and key number tag to the cabinet in a safe place in the event it is needed at a later date. The key number tag is the **only** place that this number is available. If you lose this number you will not be able to order duplicate keys and you will have to replace the locks.

3.0 HOW TO PROGRAM YOUR GUARDIAN

Overview of Owner Interface

The *Owner Interface* features allow you to navigate through the various programming and reporting menus and reset the machine from error conditions. The User Keypad (pin pad), User Selection (package selection) Buttons and User Display located on the front of the machine will be used to navigate through the various Main Menu features available.

Overview of Settings & Report Menu Items

There are a variety of menu items available. Each main menu item will be either a SETTING or a REPORT menu. Settings are nothing more than system parameters that can be used to establish the machine behavior. Settings will typically relate to the hardware modules that you have purchased. For example, the *Bills Accepted Settings* menu relates to the bill acceptor and can be used to set the bill denominations to be accepted. As a result you can change the acceptance and security behaviors of the machine.

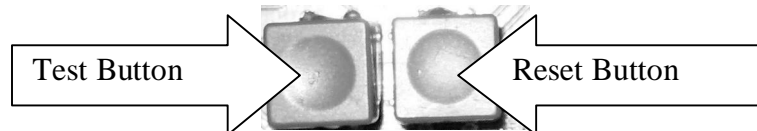
Reports allow you to view records that are stored in the machine. These records are useful for accounting and troubleshooting. See the sections titled *Report Menus* and *Settings Menus* for an explanation of the benefits of each. Each setting type or report type can be viewed (on user display) or printed (on receipt printer).

Overview of Error Messages

If an error was detected in the machine the error condition will be the first thing displayed as you enter the Main Menu. If multiple errors have occurred the display will rotate through the errors. If you press the right or left arrow button you will be in the Main Menu. **Hint – you can also view the machine errors and events by accessing the Event Report menu item.** See the section of this manual titled Event Reports for more detail. For information regarding the errors, see the section of this manual titled Troubleshooting.

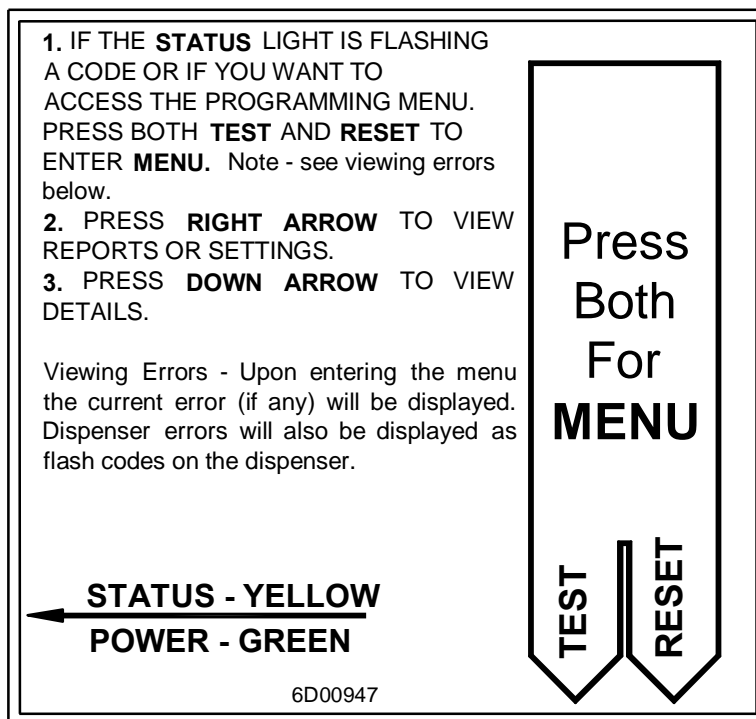
3.1 Accessing the Main Menu

Enter the Main Menu by pressing both red buttons simultaneously for at least 3 seconds and then release them. See the decal (below) located on the main control panel for the location of the two red buttons.



Note ó you can return to the Main Menu screen at any time by pressing the CANCEL/REFUND button one or more times. Once in the Main Menu you will either see the first *main menu* item or you will see one or more errors that were issued by the machine. If you see errors you will need to clear them. See the Troubleshooting section of this manual before proceeding.

Find the desired Setting or Report by pressing the RIGHT (forward) arrow button. To view the previous main menu, item simply press the LEFT (back) arrow. Once you have found the desired setting or report, you can then go *down* into the *Details List* for this item to view additional details related to it. Note ó the main menu headings are in CAPS (all capitalized letters).



Exit by pressing the Cancel/Refund button on the front of the machine.

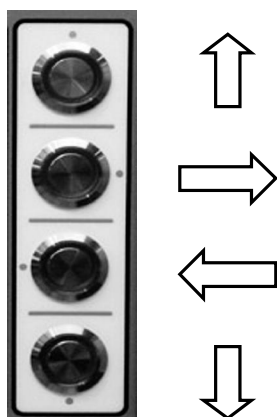
3.2 Menu Navigation

Navigating the menus in the EF-II controller is similar to navigating a spreadsheet. There are left and right arrow buttons to move you to the different columns and up and down arrows to take you to items to set or view. There are numeric buttons for entering numbers and text, a clear button to clear entries, and a Cancel button to pop you out of a menu.

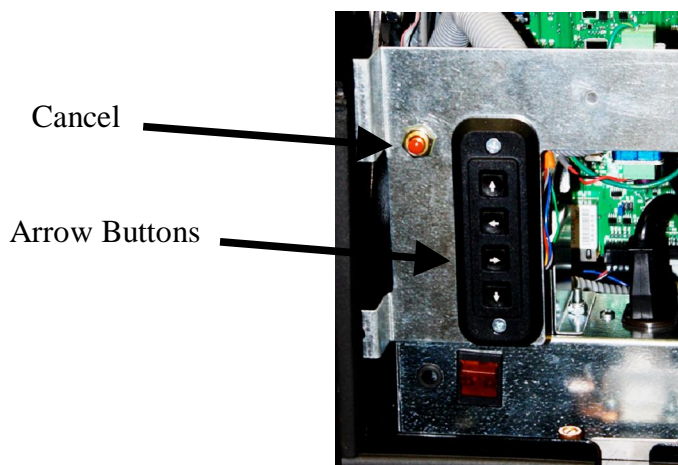
Arrow Buttons

The right / left arrows are used to change from one main menu item or to pick one of the multiple settings. The up / down arrows are used to move through the list of available settings for each main menu item. Note the little dots next to the buttons as a reminder of the direction they take you.

GXP, BE and BX



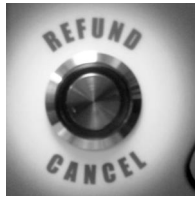
GXP-DLR



Cancel Button

The Cancel button is used to step back through the menus and then to exit the programming mode.

USER CANCEL



Number & Text Buttons

The Numeral / Alphabetical buttons on the User Keypad are used for numeric and text entries. Press the key multiple times to access other letters. Symbols (ø\$-&*<>í) and Spaces are entered using the 0 and 1 buttons. The # symbol is entered using this button. It is important to note that the # button on the User Keypad is not used to enter the # symbol. Pressing the # button will display help information about the screen that is being displayed.

EXTERNAL KEYPAD



Alpha-Numeric Buttons

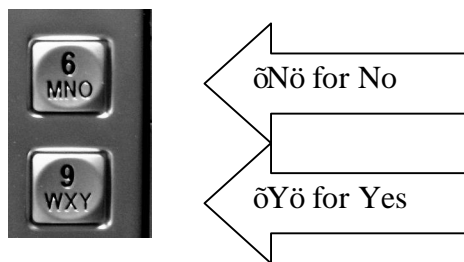
Numeric keys two through nine will cycle through the capitalized letters displayed on the key then the actual number then the non-capitalized letters. An example of the 2 key is A, B, C, 2, a, b, c, A, B etc. The 9 key is an exception in that it also has the letter Z.

The zero key will display 0, period, ?, !, comma, @, double quote, dash, underscore, [,] , (,) , semi colon, colon, { , }.

The one key will display Q, Z, 1, q, z, \$, %, &, +, -, /, =, *, <, >, #, |, ^.

Yes and No Buttons

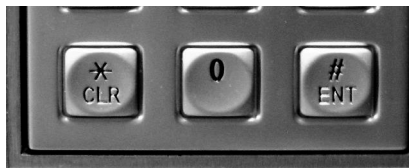
The Numeral button 6 (MNO) is used for NO and the numeral button 9 (WXY) is used for YES.



Help Button

The Help button is used to display help relating to the menu feature you are looking at. It will also provide navigation tips to let you know how to move through the menu to see available choices. If at any time you are not sure what to do next just press the Help button.

USER KEYPAD



Help Button = # / ENT

Some help screens will not fit on a single display screen so it may be necessary to press the question-mark button (?) a second or third time in order to view the next help screen. The help screens include detailed information that pertains to the feature you are viewing or setting.

Clear Button

The clear button is used to clear numeric entries or report totals.

USER KEYPAD



Clear Button = * / CLR

3.3 Drilling Down into a Menu

The UP and DOWN arrow buttons are used to navigate up and down through the list of details for a given *feature group*. You can move down in the list by pressing the DOWN arrow button. You can move up in the list by pressing the UP arrow button. When the end of the list is reached, the following message is displayed: "end of list". At this point you can press either the CANCEL or DOWN arrow button to get back to the top of the list. A feature group will wrap around. If you keep pressing the DOWN arrow will end up at the top. You can also press the UP arrow to come up from the bottom.

3.4 Menu Entries / Questions

Entering information into a menu will be in the form of answering questions. There are four types of questions presented - a Yes or No question, a question that requires a numeric answer, a text enter where are asked to name something, or a multiple choice question where you pick an answer from the available list of answers. Here is how to identify which type of question is being asked and how to answer it:

- Yes or No questions. These can be quickly identified because they end with a question mark symbol. They are answered with a YES (9 button on the user keypad) or NO (6 button on the user keypad). These are typically used to enable or disable certain functions within the machine.
- Numeric Entries. These can be quickly identified because they always have a number in the entry even if the number is zero. These are answered by entering in a number from the user keypad. Pressing the clear button will zero the entry. These are typically used to set vend amounts, time delays, alarm inputs, etc.
- Text Entries. These can be quickly identified because a cursor (underline or underscore symbol) will be blinking under the first letter of the entry. These are answered using the letters associated with each number on the user keypad. These are typically used to allow you to create a receipt header or footer, to enter a wash name, to enter a promotion name, etc.
- Multiple Choice Entries. This type of question can be identified by the current selection having arrows on each side of the ←answer→. To see the list of available choices press the LEFT or RIGHT arrow button and the next choice is shown. Once you have found your answer just press the DOWN button to proceed to the next question and the choice you were viewing will be accepted as the answer.

4.0 REPORT MENUS

4.1 Printing a Report (not DLR model)

Reports can be printed by pressing answering yes (button 9 on user keypad) when prompted (asked if you want to print a report). Reports can be cleared by answering "yes" when prompted or by pressing the "clear" button while at the main menu for the desired report. Example: if you want to clear the Audit Report then press the "clear" button while the "Audit Report" main menu item is showing on the display.

4.2 Quick Print Reports

The Quick Print feature allows you to set a group of reports that can be quickly printed as a group. This saves you valuable time in obtaining reports. To create a quick print group simply go to the Quick Print settings under PRINTER SETTINGS and answer yes to the reports you want included. To initiate the printing of the reports in this group you can either press the (0) button just after you have entered the Main Menu or you can print it from outside the machine if you have created an Quick Print code. There is also a Quick Print code for automatically clearing the reports that you have selected.

4.3 Configuration Report

This feature is used for troubleshooting only. It allows you to view the software version for the program in each of the machine modules: dispensers, EF Module, etc. The type and value of each dispenser can also be found here. Other devices connected to the GXP will be displayed here also.

4.4 Audit Report

There are two audit report types available. The most commonly used audit is the "resettable audit". This audit can be cleared and will provide accounting for any machine activity from that point until it is cleared again. The second audit report type is the "perpetual audit". This audit cannot be cleared and represents all activity from the time the machine was manufactured. This audit is useful when verification of the machine accounting cannot be ensured using the resettable audit. Each of these reports are available in detail or summary.

Note - It is not unusual for the Revenue In to exceed the Revenue Out in a machine that is set to allow "Exact Change Only" operation in the event a hopper is not available for making change.

4.5 Diagnostics Report

Several reports have been grouped under "Diagnostics Report". These reports are designed to help troubleshoot your machine.

4.5.1 Event Report

The Event Report provides valuable troubleshooting information. Each major machine event is logged with a time stamp in this report and can be used to find normal problem sources. Examples of events that are logged are power losses, machine resets, and normal machine errors. This report is viewable or can be printed.

4.5.2 Engineering Report

The Engineering Report is used to log easily identifiable problems that engineering wants to track. This report is only printable.

4.5.3 Debug Report

The Debug Report is used to log occurrences in new features that engineering wants to track. This report is only printable.

4.5.4 All Reports

This is used to print all of the settings that have reports. This would include test receipts, the Promotion Report, the Configuration Report and the Button Settings. Be aware that the print out can be long.

4.5.5 Cortex Report

This report is only available if the CCII Internet (Code Command POS System 4) is selected under POS Settings. It is used to determine if the Guardian and the Cortex web site are communicating correctly.

4.6 Promotion Reports

If you have setup a promotion this report will show you what you have setup. For information related to using the Promotion Features in this machine, see the section titled "Setting Up a Promotion".

4.7 Printer Reports

This is a menu for reports that do not belong to another menu. These are explained below. Many of the reports available in other menus can also be printed here for conveyance.

4.7.1 Summary Resettable and Perpetual Audit

This reports the overall revenue in, wash sales and revenue out. These are the same reports as in the Audit Reports Menu.

4.7.2 Door Open History

If a door switch kit (4K00439) is installed the machine can capture the Resettable Audit, Perpetual Audit, Event Report, Configuration Report and Accept Report for the last six times that the door was opened. From this menu you can print all six of the captured reports.

4.7.3 Shift Audit

There are two shift audits that are independent of each other. They can be printed and cleared separately from each other.

The following example report is an Accounting Report that can be printed at the GXP machine. The GXP machine will require a Portable Audit printer or the Receipt printer so it can provide the printed report. This report identifies:

- 1) The total *wash code* sales activity from the POS (Code Command) terminal.
- 2) The total *wash code* sales activity from the Pumps (Fuel Dispensers).
- 3) The total *cash or credit* sales activity from the GXP machine.

- 4) The total number of all *washes* that were issued from the GXP to the wash bay.
- 5) The total number of *wash codes* that were redeemed at the GXP machine.

Note: If you do not have a POS connected to the GXP machine only the GXP Sales will be printed.

<pre> /-----\ SHIFT AUDIT 1 location id 0 01/18/10 MON 1:07 PM \-----/ last cleared on 01/15/10 FRI 8:43 AM POS Terminal Sales WASH 1 Full Price qty=8 Discount 1 qty=0 Discount 2 qty=0 Rewash qty=0 WASH 2 Full Price qty=10 Discount 1 qty=0 Discount 2 qty=0 Rewash qty=0 WASH 3 Full Price qty=12 Discount 1 qty=1 Discount 2 qty=0 Rewash qty=1 WASH 4 Full Price qty=6 Discount 1 qty=0 Discount 2 qty=0 Rewash qty=0 Transactions Total qty=38 Value=\$93.00 Refund Total qty=0 Value=\$0.00 </pre>	<pre> Pump Sales WASH 1 Full Price qty=0 Discount 1 qty=0 Discount 2 qty=0 WASH 2 Full Price qty=0 Discount 1 qty=0 Discount 2 qty=0 WASH 3 Full Price qty=0 Discount 1 qty=0 Discount 2 qty=0 WASH 4 Full Price qty=0 Discount 1 qty=0 Discount 2 qty=0 Transactions Total qty=0 Value=\$0.00 Refund Total qty=0 Value=\$0.00 </pre>	<pre> GXP Sales WASH 1 Cash=\$0.00 Card=\$0.00 Wash Codes=0 Total qty=0 WASH 2 Cash=\$0.00 Card=\$0.00 Wash codes=0 Total qty=0 WASH 3 Cash=\$0.00 Card=\$0.00 Wash codes=0 Total qty=0 WASH 4 Cash=\$0.00 Card=\$0.00 Wash codes=0 Total qty=0 total Cash=\$0.00 Card=\$0.00 Wash codes=0 Total qty=0 /-----\ END OF REPORT \-----/ </pre>
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5.0 SETTINGS MENUS

Update a Setting

The Settings menus are used to set values and other operating parameters that are specific to your machine. You can also print a report for almost every setting menu and it is advisable to do so. This will be useful if you need to reprogram for any reason. To enter a new setting first find the main menu topic related to it and then press the down arrow button until you find the setting you wish to change. The setting will be in the form of a YES or NO question, a numerical entry or a multiple-choice list. Once you have made the change you can continue to press the down button to change another related setting in that menu or just press the Cancel/Refund button to go back to the top of the current Menu.

5.1 Printer Settings (not DLR model)

This menu is used to set the printer model included in the machine, identify when you want a receipts to be available to the user, add header or footer information to the receipt, and setup a group of reports to include in the Quick Print report.

Notes on formatting transaction receipts ó You can customize the header and footer on your receipt. The header area is typically used to identify your business location. The footer is typically used for printing a "Thank You" to the patron. The footer will be printed with white text on a black background. See the directions at the beginning of this document for a reminder regarding the process for "Entering Text".

5.2 Bills Accepted Settings (not DLR model)

This menu lets you set parameters that are associated with the bill acceptor. Use this to increase or lower bill acceptance security, disable or enable acceptance of certain bill denominations, etc.

5.3 Button Settings

This menu lets you set parameters that are associated with the Wash Packages and *a la carte* items that you offer. *A la carte* items are upgrades that either come with the wash package or the user can add to their wash package. Use this menu to set the name of the button and whether the button is a wash or an *a la carte*. After all of the buttons have names and they are either a *package*, *a la carte* or a *quantity*, values or quantities can be assigned to the buttons. You can program the machine to automatically include *a la carte*s with a wash package.

When the *a la carte* feature is used, we highly recommend that the machine be configured to operate in the Preselect mode. This reduces the chance for a user to forget to include the *a la carte* item in their purchase. Example - in Preselect mode our display prompts you to "make a selection" before depositing payment. This reduces the chance of someone first depositing payment, then pressing the wash package selection they want, and then trying to press the *a la carte* they want. If payment is deposited first, the sales cycle of the GXP will complete the moment they select their Wash Package; they never get a chance to press the *a la carte* button because the machine had no way of knowing that they "intended" to also purchase the *a la carte*. In Preselect mode we are prompting them to

make the select (and *a la carte*) before they deposit payment so they have plenty of time press the *a la carte* button.

Notes:

1. At least one of the buttons must be configured (programmed) as a regular Wash Package selection.
2. The button type of quantity will not be shown unless you have a CCII Internet selected under POS Settings.

5.3.1 Setting the name of the button

button name X
<*SELECTION X*>

The button name is a label that the user will see and it is used in menus and in reports.

The top line of the display is generic and can not be changed. The name you see on the bottom line of the display is the current choice. Use the right or left arrow button to see each of the name options. Hint ó this is a multiple-choice entry. If you do not want to use any of the preprogrammed names available then select the --*Use Custom*-- entry by pressing the down arrow button. What ever you choose will be used in other menus, in reports and displayed to the user.

Custom Name, The cursor will be flashing under the first character of the *button name*. You can now change the *button name* using the text entry method.

5.3.2 Changing the type of button

selection is
<*package button*>

A *package* button is a complete wash package that may include an *a la carte*. If an *a la carte* is not included with a wash package it WILL be selectable. You can not exclude an *a la carte* from a Wash Package, but you can automatically include an *a la carte* with a Wash Package.

5.3.3 Entering the value of the Wash Package or A la carte

"button name"
value=\$0.00

Enter the value of the button. This could be the wash package value or the *A la carte* value.

5.3.4 Dispensing a Bonus Code

"button name"
<*NO BONUS CODE*>

If you have setup one or more *Bonus Codes* under Discount Type Settings they will appear here. A *Bonus Code* is a one-time use code that can give a discount to your customer. Please see Discount Type Settings for more details.

5.3.5 Adding an A la carte to a wash package

includes a la carte

“button name”? NO

This is only asked of a wash if you have assigned button(s) as an *A la carte*. This allows you to always include the *A la carte* with a wash package. More than one *A la carte* can be included with a wash package.

YES – The *A la carte* is automatically included with the wash package.

NO – The user will have to select the *A la carte* to include it with the wash package.

5.3.6 Setting the Forced Change amounts

update forced

change settings?

Used to force particular change only when change is needed. This would help promote tips for employees.

YES - To makes changes to the forced change settings.

NO – To go to Wash equipment signal time.

5.3.6.1 Forcing particular change

cancel uses

forced change? YES

YES – Pressing the cancel button will pay change according to the forced amounts.

NO – The cancel button will not pay forced change.

Note: this is affected by the ÷cash cancel limit÷ in Other Settings.

5.3.6.2 Forcing change from cash dispensers

“cash dispenser”

forced change=0

For each money dispenser enter the number of items you wish to force out. The GXP will dispense as many of those items with out exceeding the amount you entered and the amount of change to be given. After Forced Change is finished Make Best Change will apply.

5.3.7 Alternate output relay pattern

use alternate

relay pattern? NO

NO ÷ Separate relay for each wash selection.

YES ÷ Uses relay pattern shown in table.

Wash number	No selected	Yes selected
	Relay Closed	Relay Closed
1	1	1

2	2	2
3	3	3
4	4	4
5	5	4 & 1
6	6	4 & 2
7	7	4 & 3
8	8	4 & 3 & 1

These are the Y1 through Y8 outputs on the PLC. Note that the standard PLC only has Y1 through Y4. If you need Y5 through Y8 a separate module must be purchased.

5.3.8 Wash equipment signal time

vend duration
time 1 secs

The length, in seconds, that the wash signal will be active to the car wash equipment.

5.3.9 A la carte signal duration

a la carte duration
<vend cycle>

- **Vend Cycle** 6 The *A la carte* signal will be on until the end of the wash signal is received
- **Timed** 6 Selecting this will allow an entry in seconds for the length of all *A la carte* signals.

5.3.10 Entry message timeout

entry message
timeout 10 secs

The time in seconds that a driver will be prompted to pull forward.

5.3.11 Entry Delay

entry delay
time 1 secs

This feature is used to increase the amount of time the 6Exit Prompt6 will be displayed. It is particularly useful in the following circumstances:

- If the Wash Bays has a *purging cycle* that occurs after the washed car has exited the bay. In this example there may be a long delay before the next car (stacked car) is supposed to enter the bay.

Note – if the machine is equipped with a proximity sensor the Exit Prompt will shutoff as soon as the stacked car is no longer in front of the machine, regardless of the Exit Delay time.

5.3.12 Stacking cars

car stacking
<single>

- **Single** ó A second user can pay for his wash while a car is in the wash bay.
- **Multiple** ó Up to ten users can pay for their wash.
- **None** ó A second user can not pay for his wash until the wash bay is empty.

5.3.13 Automatically refund upon a wash error

*Auto refund on
equipment error? NO*

YES - Will have the GXP automatically give a refund if a wash bay error occurs.

NO ó No refund will be given if a wash bay error occurs.

5.3.14 Monitor the Wash In Use signal?

*enable Equip In Use
signal check? YES*

YES - The wash bay will provide a feedback signal to the machine.

NO - There will not be a feedback signal and you want a timed output.

Note: The WASH IN USE/END OF CYCLE signal is typically used in automatic bays. This signal is routed to the PLC X1 input through the Cycle Inhibit relay. Tunnel bays typically do not use a feedback signal.

5.3.15 Monitor the Wash Bay Fault signal?

*Enable Wash Bay
Pulse check? YES*

YES - The brand of wash bay equipment allows the WASH IN USE/END OF CYCLE feedback signal to issue a pulse indicating the wash bay has encountered an error. When the pulse is detected the machine will cancel any stacked washes and allow a refund. The Wash Bay Fault signal is not available with all brands of wash bays. This requires a Bay Fault relay. If this feature is installed this should be set to no.

NO ó The brand of wash bay equipment does not have a WASH IN USE/END OF CYCLE feedback.

5.3.16 Wash Bay Busy timeout

*Equip error
Timeout 10 mins*

Enter the maximum time in minutes that the wash bay busy signal could be active. This should be one or two minutes longer than the longest wash cycle time. If the wash bay busy signal is longer than this an error will occur.

5.3.17 Ignoring a missed WASH IN USE/END OF CYCLE feedback signal

*end of cycle error
count 0*

Enter the number of times to ignore a missed feedback signal before a Wash Equipment error occurs.

The count is decremented if a Cycle Inhibit signal is not seen within the Wash Bay Busy timeout. When the count reaches zero a Wash Equipment Error is generated. If you set the count to zero a Wash Equipment error will occur immediately.

5.3.18 Delaying the wash signal

wash signal delay

0 secs

Enter a delay in seconds before the wash signal is sent to allow for a receipt printout.

5.3.19 When to prompt users to upgrade their wash

Use upgrade timer

< never >

- **never** – the user will never be prompted to upgrade his wash.
- **always** ó the user will always be prompted to upgrade his wash.
- **stacked** ó users will only be prompted to upgrade their wash if they are stacked.

The *benefit* of this feature is that it will allow the operator every possible chance to Upsell their wash services to the user thereby potentially generating more revenue per customer. To accomplish this every user regardless of their payment method (cash, credit or pre-paid code) will be provided an opportunity to upgrade their wash package or add an A La Carte service (Ex: RainX) to their initial selection. The Upsell time will be operator programmable. Users who wish to skip the Upsell time will be prompted via voice message to press the "ENT" button on the keypad.

5.4 POS Settings

The POS systems supported are the Unitec POS4000, Code Command I Wired, Code Command II Internet, Code Command II Encrypted and Code Command II Wired. You should always contact your POS manufacturer with any questions regarding the operation of the POS terminal, the reports that are available through the terminal and for setup questions.

The POS system will show up in the configuration report if communication is active. If no communication occurs after 30 seconds a COMM LOST from POS code will occur.

Note-Synchronize the POS audit to the machine audit by clearing both the POS terminal audit and machine audit at the same time.

5.4.1 The POS type you are connecting to

POS type

< NONE >

If you are connecting the machine to a POS system then select the appropriate brand / model from the available list.

5.4.2 POS4000

5.4.2.1 GXP address

GXP address

2

The address the GXP would use when communicating to the POS system.

5.4.2.2 Use POS names and prices?

*Use POS names and
Prices? YES*

With some POS systems the GXP can get the wash names and prices from the POS system.

YES ó The GXP will use the names and prices entered at the POS system.

NO ó The GXP will use the names and prices entered at the GXP.

5.4.2.3 Send offline to POS?

*Send offline
to POS? YES*

This will instruct the GXP to tell the POS system that the GXP is offline. Some POS systems will not issue codes if the wash entry system is offline.

YES ó You can not sell wash codes while the GXP is offline.

NO ó You can sell wash codes while the GXP is offline.

5.4.2.4 Send audit to POS?

*Send audit
to POS? YES*

This will instruct the GXP to send the sales information to the POS system.

YES ó Send the sales information to the POS system.

NO ó Do not send the sales information to the POS system.

5.4.2.5 Automatically entering a code number

*auto enter after
6 digits*

The number of digits that can be entered before a code will automatically entered. This can be convenient for you customer so they do not have to press the enter key. You need to make sure this is large enough for any codes, PIN numbers or external access codes.

5.4.2.6 Operating Hints

- For information related to setting up and connecting a POS4000 terminal to the GXP machine, consult the "Installation Quick Guide".
- All POS4000 codes will end in "0". As long as the code ends in a "0" and it is 5 characters in length, the GXP will be able to distinguish a POS generated code from a discount code. Discount codes should not end with a "0" and be 5 characters in length.
- A discount code cannot be used in conjunction with a POS code. The discount would have been applied at the time the POS code was sold, not at the time it was used at the machine.
- The accounting information for the GXP is included in the POS4000 summary report. The report generated by the GXP should not be used if the POS4000 is connected. The POS4000 is the master for the reporting.
- The POS4000 is capable of generating wash codes and fleet codes. Wash codes are one time use and have an expiration date assigned at the POS4000 terminal. Fleet codes can be used multiple times and typically do not have an expiration date assigned.

The controller in the GXP should have an EFII board equipped with an RS485 header and connector, and a program version 2.009 or higher. The POS 4000 should be equipped with the Unitec version of software.

To enable the GXP to use the RS485 link to the POS4000, go to the Other Settings menu and set the Location ID to the next highest RS485 address number that was assigned to the POS4000. Example: if the POS4000 were assigned 1 POS is used, our location would be 2. Multiple POS locations may require us to try different location settings (2-99). These locations should be sequential.

- POS TYPE - Set to POS 4000

5.4.2.7 Auditing

POS has its own capabilities to show the total monies in for the selection prices. It will not show any discounts so the total money in will be less any discounts at the machine (Ex. Code, Token, Coupon, and Early Bird). POS4000 and the GXP audits will need to be cleared separately and at the same time to match.

5.4.2.8 Troubleshooting

POS4000 will show up in the Configuration Report. If we lose communication with the POS, we will record a "POS4000-com lost" error.

POS4000 has a "link test" that the owner can use to confirm it sees our system. The POS will have a "time out" error if it loses communication with the GXP.

Make sure a number has been entered at the *GXP address* in *POS SETTINGS*.

On advance replacements for the EFII board, make sure the proper software and Rev board is used.

No Comm- make sure the RS485 cable is terminated correctly and plugged into the correct locations.

5.4.3 CCI wired – (Code Command I)

This authenticates one time use codes for a single site. The one time use codes will expire. You can not do fleet codes. This requires a cable connection between the GXP and the CCI terminal.

The controller in the GXP should have a GXP EFII Control Module equipped with an RS485 header and connector, and a program version 3.038 or newer.

It is recommended that you set the *Link Down Alarm Active* to *Disable* in the Code Command. If it is Enabled the Code Command will sound an alarm and require that you hit any key to continue when you are in the GXP programming mode.

5.4.3.1 Number of digits used for a wash code

of code digits

6

The number of digits to be used for a wash code. The more digits that are used the more secure you are from somebody guessing a code.

5.4.3.2 Automatically entering a code number

auto enter after

6 digits

The number of digits that can be entered before a code will automatically entered. This can be convenient for you customer so they do not have to press the enter key. You need to make sure this is large enough for any codes, PIN numbers or external access codes.

5.4.4 CCII Internet – (Code Command II)

This involves co-ordination between the GXP, CCII terminals and the Cortex web site. Please see document 8M00609 for instructions on how to do this.

5.4.4.1 Code Management Tools

This new menu item will show up on the main menu loop when CCII Internet is selected under POS Settings. *Code Management Tools* will allow the owner to print out a summary for a specific code number, print out an *audit* of the last 50 Book of Code transactions, and allows the owner to cancel a code.

5.4.4.1.1 Entering a code to be checked

***enter code
number 0***

Enter the code you wish to check and press the down arrow to check a code.

5.4.4.1.2 Printing a summary of the entered code

***print code
summary?***

Press **YES** to print out the details of the code.

5.4.4.1.3 Canceling a code

Cancel code?

Press **YES** to cancel the code. There will not be a record of this code if you press yes.

5.4.4.1.4 Printing a Book Of Codes

***print Book Of Codes
report?***

Press **YES** to print all of the Book Of Codes sold at this machine.

This is only available if you have Code Command II selected under POS Settings.

Book of Codes Report
Location ID 2
01/01/11 TUE 3:39PM

Standard Change
Engineering Test
(address)

1. Code = 926628
Date sold
01/11/11 Tue 3:37PM
Date Expires
07/11/11 Sun 3:37PM
Wash = Texan
A la carte = Rain x
Uses sold =4
Card = MC 6781
Money in = \$44.00
Money out = \$00.00
Status =Good

5.4.4.1.5 Clearing a Book Of Codes

***clear Book Of Codes
report?***

Press **YES** to clear all of the Book Of Codes sold at this machine.

This is only available if you have Code Command II selected under POS Settings.

5.4.5 CCII Encrypted – (Code Command II)

The settings for the *encrypted* POS involve mathematical algorithms. Therefore it is very important that the encrypted settings in the GXP match the settings in the sales terminal (satellite). This authenticates one time use codes from single or multiple terminals. The one time use codes will expire. You can not do fleet codes. No cables are needed between the GXP and CCII terminal.

5.4.5.1 Number of digits used for a wash code

of code digits

6

The number of digits to be used for a wash code. The more digits that are used the more secure you are from somebody guessing a code.

5.4.5.2 The number of wash code sales terminals

Max Satellites

0

Enter the number of Code Command II terminals that will be selling wash codes. It is very important that this matches the setting in the sales terminal (satellite).

Note: This question is only asked if *encrypted* is selected in POS Settings.

5.4.5.3 The number of wash packages

Max Progs

0

Enter the number of washes that your bay supports. It is very important that this matches the setting in the sales terminal (satellite).

Note: This question is only asked if *encrypted* is selected in POS Settings.

5.4.5.4 The maximum number of codes to be issued in one day

Max Codes

0

This number should be calculated by the sales terminal (satellite) and entered here. It is the number of codes that can be issued in one day. The sales terminal will calculate the maximum number. If you wish to limit the number of possible guesses you should set this number at the sales terminal and at the GXP to a lower value. If you wish to limit the risk of someone fraudulently guessing a wash code you should set this number at the GXP and sales terminal to a lower value.

5.4.5.5 Network Mask

Network Mask

0

Enter a unique 5 digit number so that your codes will be different then other nearby encrypted codes. This does not have anything to do with an ethernet network. It is very important that this matches the setting in the sales terminal (satellite).

5.4.5.6 The time the wash code is valid

valid for xx days

The more digits you use for your code the longer the codes can be valid before they are duplicated.

Number of Digits	Valid days	Customer Days
5	34	14
6	119	60

Number of Digits ó entered above.

Valid Days ó The maximum number of days that you can choose until a code can be issued again. Do not exceed this amount.

Customer Days ó The number of days you should tell your customers that they have to use the code.

5.4.5.7 Limiting the number of codes that can be validated

max window

0

This is a GXP only setting. It limits the number of codes that can be validated. This is in case somebody is guessing your codes. If left at zero then there is no limit.

5.4.5.8 When to clear the encrypted database

Clear the encrypted database?

If you make any changes to the Number of Digits, Max Satellites, Max Progs, Max Codes, Network Mask or Valid Days you should clear the database. The issued codes are based on these entries. Changes should only be made under the right conditions. Clearing the database starts the codes all over. Previously issued codes may or may not work.

5.4.5.9 Automatically entering a code number

auto enter after

6 digits

The number of digits that can be entered before a code will automatically entered. This can be convenient for you customer so they do not have to press the enter key. You need to make sure this is large enough for any codes, PIN numbers or external access codes.

5.4.6 CCII Wired – (Code Command II)

This authenticates one time use codes from single or multiple terminals. The one time use codes will expire. Fleet codes are only for a single site. This requires a cable connection between the GXP and the CCII terminal.

Please see document 8M00610 on how to setup the CCII terminal.

5.4.6.1 Number of digits used for a wash code

of code digits

6

The number of digits to be used for a wash code. The more digits that are used the more secure you are from somebody guessing a code.

5.4.6.2 Automatically entering a code number

auto enter after

6 digits

The number of digits that can be entered before a code will automatically entered. This can be convenient for you customer so they do not have to press the enter key. You need to make sure this is large enough for any codes, PIN numbers or external access codes.

5.4.7 RFID Settings

This is located under POS Settings

5.4.7.1 RFID type

RFID type

< NONE >

Only the Xpress Wash RFID system is supported

5.4.7.2 RFID ethernet IP address

RFID IP address

000.000.000.000

This is the IP address of the RFID server and it must be set. Contact Xpress Wash for this address.

5.4.7.3 RFID ethernet port

rfid port

0

This is the port used by the RFID server and it must be set. Contact Xpress Wash for this port.

5.5 Code Management Tools (only available with CCII Internet)

This new menu item will show up on the main menu loop when CCII Internet is selected under POS Settings. öCode Management Toolsö will allow the owner to print out a summary for a specific code

number, print out an audit of the last 50 Book of Code transactions, and allows the owner to cancel a code.

5.5.1 Entering a code to be checked

enter code

number 0

Enter the code you wish to check and press the down arrow to check a code.

5.5.2 Printing a summary of the entered code

print code

summary?

Press **YES** to print out the details of the code.

5.5.3 Canceling a code

Cancel code?

Press **YES** to cancel the code. There will not be a record of this code if you press yes.

5.5.4 Printing a Book Of Codes

print Book Of Codes

report?

Press **YES** to print all of the Book Of Codes sold at this machine.

This is only available if you have Code Command II selected under POS Settings.

Book of Codes Report
Location ID 2
01/01/11 TUE 3:39PM

Standard Change
Engineering Test
(address)

2. Code = 926628
Date sold
01/11/11 Tue 3:37PM
Date Expires
07/11/11 Sun 3:37PM
Wash = Texan
A la carte = Rain x
Uses sold =4
Card = MC 6781
Money in = \$44.00
Money out = \$00.00
Status =Good

5.5.5 Clearing a Book Of Codes

*clear Book Of Codes
report?*

Press **YES** to clear all of the Book Of Codes sold at this machine.
This is only available if you have Code Command II selected under POS Settings.

5.6 Auxiliary Output Settings

This menu lets you set parameters for controlling a generic output. This output can be used to control an external gate.

5.6.1 Will the machine control a gate?

*Issue aux out with
Button output? NO*

YES - The machine will output a signal.
NO - The machine will not output a signal.

5.6.2 Will there be a feedback signal provided?

*Is a feedback
signal used? NO*

YES - The machine will output a signal until a feedback signal is received.
NO - A timed output signal will be sent as set below.

5.6.3 Gate out signal time

*Aux output vend
time 1 secs*

The time, in seconds, that the auxiliary out signal from the PLC will be active. The auxiliary out signal goes out at the same time as the wash signal.

5.7 Card and Bill Fast Vend Settings

The machine is equipped with a feature that can detect unusual and excessive machine activity, usually indicative of fraudulent activity. This feature is called Fast Vend Shut Off. The machine will detect that the frequency of use is unusually high for a pre-determined period of time, and shut itself down for enough time to deter the thief. See the following paragraphs to learn how to set the number of deposits allowed, the time period they are allowed in, and the time the machine will be shut off if this feature is activated.

There are separate settings for bills and cards. To see the Bill Fast Vend Settings you must have a bill acceptor connected. To see the Card Fast Vend Settings you must have a card system selected in Credit Settings.

5.7.1 Bill Fast Vend Settings (not BE or DLR models)

This is used to restrict machine usage to normal bill transaction amounts in a given time period. The primary benefit of this feature is in the added protection against stringing should the bill acceptor stringing detection devices become defeated. This feature allows you to set the "normal" amount of bills of each type that are accepted in a given time period. If this usage pattern is exceeded the machine will shut down and stay off-line until the reset button is pressed or until the Error Time Out lapses. See "Other Settings" for a description of Error Time Out and how to set it.

5.7.2 Card Fast Vend Settings (not DLR model)

(Applies to version 2.010 or newer)

To effectively manage fraud attempts common to credit card theft, you are provided with four lists. The first list is the Rejected Card List. You will enter the frequency of use and time period parameters necessary for the machine to determine when a card has been used an unusual number of times in a given time period. Once a card is used more times than allowed, it will automatically be added to the Rejected Card List along with a time/date stamp of when the card use was attempted. This list can store up to 100 card numbers on a *temporary* basis. Card numbers present in this list will not be approved until they are removed from the list or the card number is added to the Good Card List.

The Good Card List is a list of cards that you want to accept regardless of the number of times they are swiped. To add a card to the Good Card List you will manually enter the last four digits of the card number along with the card type.

You can also add known fraudulent card numbers to the Bad Card List. This list contains the last four digits of card numbers along with the card type that you want to decline no matter how infrequent they may be used. It is important to note that you should manually transfer card numbers from the Rejected Card List to the Bad Card List as soon as you have confirmed them to be fraudulent cards. Again, the Rejected Card List is temporary. You should manually transfer these card numbers into the Bad Card List if you believe them to be fraudulent. If the Rejected Card List becomes full (first 100 bad cards) the new card numbers will begin to overwrite the older card numbers.

The final list is the Accepted Card List. This is a simple list of the cards accepted. You will see the last four digits of the card number along with the card type and a time/date stamp of when the card was used.

You can clear or print any of these card lists. We recommend that you print the list before clearing it so you have a paper record of cards that were once determined to be Good, Bad, Rejected or Accepted.

5.8 Credit Settings (not DLR model)

Use this menu to select the card system you want to use. Depending on which card system you have selected you may be asked about IP addresses and ports.

5.8.1.1 Choose the credit card system that you will be using

card system

< no card >

5.8.2 Datacap or Twintran

If you have selected the Datacap or Twintran you should configure the Credit Card reader and modem (black box). It is important to be familiar with your Merchant Setup prior to altering any of these settings. The Merchant Setup information can be found on the forms that were filled out at the time of the machine purchase.

5.8.2.1 Application type

Application type

host

Host is the only choice.

5.8.2.2 Allow duplicate cards?

Allow duplicate

Cards? NO

YES - The user can use the same credit card in the same batch.

NO - The user can not use the same credit card until the batch is processed.

5.8.2.3 Updating your network settings with your credit card network

Update Network Settings?

Press **YES** to start the update.

5.8.2.4 Extra security

enable zip code

checking? NO

Select **YES** if you want the customer to have to enter his zip code.

5.8.2.5 Viewing error messages from the card processor

View error

message?

Press **YES** to see the message.

5.8.2.6 Warning for possible credit card problems

card usage

low = 20

This is the maximum number of times cash can be used without a credit card being used. This will create a warning for the owner. This may indicate a card reader problem. Choose a number that fits your cash and credit card usage.

5.8.2.7 Credit Card Module

The Credit Card Module is based on the same technology that is used in the credit card terminals found at the major super market store checkout lanes. A credit card terminal will include a *card reader*, a *modem* and a *display* for prompting the user with credit card related instructions such as "swipe card", "card not read", "card authorizing", etc.

UNDERSTANDING CREDIT CARD PROCESSING:

For a basic understanding of how any credit card processing systems work, refer to document 8M00613. This provides a description of each step required to get an electronic transaction from the card terminal to the card processor for authorization, and then to get the electronic funds transferred from the card processor to your bank account. Consult the factory for details.

PROGRAMMING YOUR CREDIT CARD SYSTEM. All machines equipped with a Credit Card Module have been factory programmed to match the Machine Configuration Form that was submitted at the time of order. If it should become necessary to alter any of these program settings, please refer to the Credit Card Settings in the main menu of the machine and press the help button to learn more about each setting.

HIGH SPEED CARD PROCESSING: Some credit card processors allow high speed card processing. If your machine was ordered with this capability, it will be equipped with an IP Tran module. This module will be located outside of the machine unless it has been mounted prior to shipping. A device capable of being set as a DHCP server (router or switch) must be present at the site. This device is not provided with the machine. The router or switch must be set to identify the Internet



The credit card terminal is comprised of a card reader and a modem. The modem shown here is the legacy DataTran 162SL. This is the box that connects to the phone line.

Service Provider (company providing the DSL or cable service) as the DNS source. It must also be set as the DHCP server. Both of these settings are configured in the device. Support questions for these settings should be directed to the company the device was purchased from.



The IPTRAN provides the high speed option when combined with the DataTran modem. This device has an ethernet port that connects to a router capable of supplying a dynamic IP address.

5.8.3 WashCard or WashCard & Datacap (non “E” versions of software)

5.8.3.1 GXP ethernet IP address

local IP address

000.000.000.000

You can set this to an address you want to use or clear it and your server will assign it (DHCP).

5.8.3.2 GXP ethernet port

local port

0

The actual port may not be important as long as it is not zero. See Appendix D Restrictions On Port Usage.

5.8.3.3 GXP subnet mask

subnet mask

000.000.000.000

You can set this or clear it and your server will assign it.

5.8.3.4 The GXP can not get to the internet

Gateway IP address

000.000.000.000

If the router can not be found enter the IP address.

5.8.3.5 WashCard ethernet IP address

remote IP address

000.000.000.000

This is the IP address of the WashCard server and it must be set. Please contact WashCard for this information.

5.8.3.6 WashCard ethernet port

remote port

0

This is the port used by the WashCard server and it must be set. Please contact WashCard for this information.

5.8.3.7 Viewing error messages from the card processor

View error

message?

Press YES to see the message.

5.8.3.8 Warning for possible credit card problems

card usage

low = 20

This is the maximum number of times cash can be used with out a credit card being used. This will create a warning for the owner. This may indicate a card reader problem. Choose a number that fits your cash and credit card usage.

5.8.3.9 Operating Hints

- Under "CONFIGURATION REPORT" you will see "WashCard is CONNECTED" if communication has been established. If communication to the WashCard system is lost for more than 3 minutes, you will see "WashCard is NOT CONNECTED". You can also see the local IP address and subnet mask assigned by the server in "CONFIGURATION REPORT".
- For information related to setting up and connecting to a WashCard card system, consult the "Installation Quick Guide".
- It may require several minutes to connect to the WashCard system. This only occurs if you cycle power or reset the GXP.
- If not connected or while connecting to the WashCard card system cash can still be accepted for a wash.

The controller in the GXP should be an EFIII board equipped with an Xport ethernet device and program version 3.033 or higher.

5.8.3.10 Troubleshooting

When connected to the WashCard card system you will see "WashCard is CONNECTED" in the "CONFIGURATION REPORT". If communication is lost for more than 3 minutes, you will see "WashCard is NOT CONNECTED".

After initializing, the GXP will beep twice indicating that auto addressing is done. A single beep will occur when a connection has been made to the WashCard card system.

Make sure that WashCard is selected for the "card system" under "CREDIT SETTINGS".

On advance replacements for the EFIII board, make sure the proper software version and board revision is used.

What do the lights on the ethernet connector mean?

The left LED indicates a connection. It requires a loop back from the other device. In other words for the light to be on it has to be connected at both ends.

The right LED indicates data flow. This can be just data out with no response.

1. WashCard is not selected and the cable is not connected.

No LEDs on

2. WashCard is not selected but the cable connected.

Left LED on steady green

When power is cycled or the Guardian is reset.

Left LED goes off while right led blinks orange

Then left LED is on steady green

3. WashCard is selected, the cable is connected and after connection with WashCard.

Left LED on

Right LED blinks green occasionally

Note: This is the same if the WashCard application goes away.

4. WashCard selected, the cable is disconnected after connection with WashCard.

Left LED off

Right LED blinks orange

5.8.4 WashGear (non “E” versions of software)

If this is a new installation it would be best to get the Guardian up and running by itself before connecting to WashGear. In this way you know the Guardian is working. Set the time and program at least one wash value. Exit all the way out of the menu and press reset. It is not necessary to run the bay only that the Guardian does not have an error. Once the Guardian is error free then proceed with the WashGear settings

5.8.4.1 GXP ethernet IP address

local IP address

000.000.000.000

You can set this to an address you want to use or clear it and your server will assign it.

5.8.4.2 GXP ethernet port

local port

0

The actual port may not be important as long as it is not zero. See Appendix D Restrictions On Port Usage.

5.8.4.3 GXP subnet mask

subnet mask

000.000.000.000

You can set this or clear it and your server will assign it.

5.8.4.4 The GXP can not get to the internet

Gateway IP address

000.000.000.000

If the router can not be found enter the IP address.

5.8.4.5 WashGear ethernet IP address

remote IP address

000.000.000.000

This is the IP address of the WashGear server and it must be set. Please contact WashGear for this information.

5.8.4.6 WashGear ethernet port

remote port

0

This is the port used by the WashGear server and it must be set. Please contact WashGear for this information.

5.8.4.7 Viewing error messages from the card processor

View error

message?

Press **YES** to see the message.

5.8.4.8 Warning for possible credit card problems

card usage

low = 20

This is the maximum number of times cash can be used with out a credit card being used. This will create a warning for the owner. This may indicate a card reader problem. Choose a number that fits your cash and credit card usage.

5.8.4.9 Operating Hints

- You will not be able to change the wash names, wash values or the clock of the GXP. This will be done by the WashGear card system.
- For information related to setting up and connecting to a WashGear card system, consult the "Installation Quick Guide".
- It may require several minutes to connect to the WashGear system. This only occurs if you cycle power or reset the GXP.
- If not connected or while connecting to the WashGear card system cash can still be accepted for a wash.
- Select the next available ömachineö number as the location ID in the Other Settings menu. Keep in mind that you will also need to use this same location ID as the identifier when setting up the WashGear software in the CardWorks application.

The controller in the GXP should have an EFIII board equipped with an Xport ethernet device, and program version 3.033 or higher.

5.8.4.10 Troubleshooting

When connected to the WashGear card system the WashGear version will appear in the `CONFIGURATION REPORT`. If communication is lost the version will be replaced with `not connected`.

After initializing, the GXP will beep twice indicating that auto addressing is done. A single beep will occur when a connection has been made to the WashGear card system.

Make sure the WashGear is selected under `CREDIT SETTINGS` and that a location id has been entered in `OTHER SETTINGS`.

On advance replacements for the EFIII board, make sure the proper software version and board revision is used.

What do the lights on the ethernet connector mean?

The left LED indicates a connection. It requires a loop back from the other device. In other words for the light to be on it has to be connected at both ends.

The right LED indicates data flow. This can be just data out with no response.

1. WashGear is not selected and the cable is not connected.

No LEDs on

2. WashGear is not selected but the cable is connected.

Left LED on steady green

When power is cycled or the Guardian is reset.

Left LED goes off while right led blinks orange

Then left LED is on steady green

3. WashGear is selected, the cable connected and after WashGear connection.

Left LED on

Right LED blinks green occasionally

Note:

This is the same if the WashGear application goes away.

4. WashGear selected, the cable is disconnected after WashGear connection.

Left LED off

Right LED blinks orange

5.8.5 SitePRO (non “E” versions of software)

5.8.5.1 GXP ethernet IP address

local IP address

000.000.000.000

As a guide the first GXP this should be set to 010.001.010.101. If you have a second GXP it should be set to 010.001.010.102. SitePRO may have you change this.

5.8.5.2 GXP ethernet port

local port

0

You will get the best results if this is set to zero.

5.8.5.3 GXP subnet mask

subnet mask

000.000.000.000

As a guide this should be set to 255.000.000.000. SitePRO may have you change this.

5.8.5.4 The GXP can not get to the internet

Gateway IP address

000.000.000.000

If the router can not be found enter the IP address.

5.8.5.5 SitePRO ethernet IP address

remote IP address

000.000.000.000

As a guide this should be set to 010.001.010.100. This is the IP address of the SitePRO server and it must be set. SitePRO may have you change this.

5.8.5.6 SitePRO ethernet port

remote port

0

Set this to 10001. This is the port used by the SitePRO server and it must be set. SitePRO may have you change this.

5.8.5.7 Viewing error messages from the card processor

View error

message?

Press **YES** to see the message.

5.8.5.8 Warning for possible credit card problems

card usage

low = 20

This is the maximum number of times cash can be used without a credit card being used. This will create a warning for the owner. This may indicate a card reader problem. Choose a number that fits your cash and credit card usage.

5.8.5.9 Operating Hints

- For information related to setting up and connecting to a SitePRO card system, consult the "Installation Quick Guide".
- It may require several minutes to connect to the SitePRO system. This only occurs if you cycle power or reset the GXP.
- If not connected or while connecting to the SitePRO card system cash can still be accepted for a wash.
- For the SitePRO server to recognize multiple GXPs, each should have a unique Location ID. The location ID is set in the Other Settings menu.

The controller in the GXP should be an EFIII board equipped with an Xport ethernet device and program version 3.079 or higher.

IMPORTANT FUNCTIONALITY CONSIDERATIONS:

- GXP discounts WILL be applied for a wash that was paid for using Fleet, Gift and Loyalty Cards. This means that if a fleet wash was discounted when a Fleet package was sold to the customer, an additional discount can be issued by the GXP. In other words the user received a discount when they pre-purchased the card and another when they used it at the GXP. Note - GXP discounts available are: Time Based, Code, Coupon, Token...
- The GXP audit does not reflect discounts issued by the SitePRO system.
- The SitePRO audit does not reflect discounts issued by the GXP.
- The GXP audit does not reflect Loyalty Reward Points Earned.
- The "Zero Balance" functionality IS NOT available with SitePRO at this time.
- The GXP has the ability to display 1 "SitePRO specific message" to the user. Ex: You have 3 fleet washes remaining", "happy birthday", "Time to replenish your account", etc. This message is played prior to the Exit Prompt ("Proceed to Bay") prompt. The remaining account balance for SitePRO Gift Cards is the only message implemented at this time. Messages related to Fleet or Loyalty cards, or any other customer messages are not currently implemented in the SitePRO server. These messages can be designed into the SitePRO server at any time and DO NOT require the GXP software or hardware to be updated.

5.8.5.10 Troubleshooting

Under "CONFIGURATION REPORT" you will see "SitePRO version" with the version number underneath if communication has been established. If communication to the SitePRO system is lost for more than 3 minutes, you will see "SitePRO version is NOT CONNECTED".

After initializing, the GXP will beep twice indicating that auto addressing is done. A single beep will occur when a connection has been made to the SitePRO card system.

Make sure that SitePRO is selected for the "card system" under "CREDIT SETTINGS".

When replacing an EFIII board, make sure the proper software version and board revision is used.

What do the lights on the ethernet connector mean?

The left LED indicates a connection. It requires a loop back from the other device. In other words for the light to be on it has to be connected at both ends.

The right LED indicates data flow. This can be just data out with no response.

1. SitePRO is not selected and the cable is not connected.

No LEDs on

2. SitePRO is not selected but the cable connected.

Left LED on steady green

When power is cycled or the Guardian is reset.

Left LED goes off while right led blinks orange

Then left LED is on steady green

3. SitePRO is selected, the cable is connected and after connection with SitePRO.

Left LED on

Right LED blinks green occasionally

Note: This is the same if the SitePRO application goes away.

4. SitePRO selected, the cable is disconnected after connection with SitePRO.

Left LED off

Right LED blinks orange

5.9 Alarm Settings

Use this menu to setup the alarm conditions that can be monitored by the Machine. The alarm conditions can be reported to the optional "Alarm Dialer" or to the optional "Auxiliary Alarm Relay". Either of these options can be purchased at the same time as the machine or can be added at a later date. Both are ideal for notifying you when your bay is no longer able to process car washes or the machine has encountered a critical error.

The *Auxiliary Alarm Relay* option can be connected to an existing dialing device that you may already have at your site. You can set any or all of the 8 available alarm conditions to trigger the relay, which in turn will trigger your dialer. This option is most commonly used to notify the owner of only critical alarm conditions that have placed the machine, or wash bay, out of service.

The *Alarm Dialer* option is a dialing system that can report up to eight alarm conditions from the machine. The alarm dialer will call you and identify which of the 8 alarm conditions has been detected thereby allowing you to determine the appropriate response. The list of default alarm conditions available in the GXP machine is shown below. Keep in mind that the Alarm Relay differs in that it can only signal your existing dialer that one or more of the eight alarm conditions has been detected, it cannot be used to identify which of the eight it was.

Below is a list of the alarm conditions that can be monitored by the machine and reported to a dialer. See the Alarm Dialer Installation and Operating instructions for more information related to the dialer.

- Bill Acceptor Offline
- Credit Card Acceptor Offline
- Dispenser Offline
- Cannot Make Exact Change
- Receipt Printer Paper Empty
- Door Opened, Note-This alarm is only available in machines equipped with the optional door switch kit.
- Event Report, Note-something has been added to the Event Report.
- Machine or Wash Bay Out Of Service

5.10 Other Settings

This feature group is where all miscellaneous settings are located. Below is a list of each one.

5.10.1 Owner Language

Owner language

←English→

Used to set the language used when in MAIN MENU/programming mode.

5.10.2 User 1st language

user 1st language

←English→

This is the primary language that will be displayed to the user.

5.10.3 User 2nd language

user 2nd language

←Spanish→

This is the language that will be displayed if the user presses the language button. The language button is optional.

5.10.4 Machine Type

Machine Type

←Guardian XP→

This is used to identify if this machine includes any Expanded Function hardware modules. The Guardian XP should be the choice selected under the Machine Type setting.

5.10.5 Error Time Out

Error timeout

15

This feature allows the machine to automatically reset from certain error types. At this time the Error Time Out only applies to Fast Vend Shutoff and a Stringing Detected Error, error conditions. For these errors the machine will be automatically reset following the time period in minutes that you have entered. If zero the machine will not automatically reset from an error.

5.10.6 Hold money that can not be dispensed for the next transaction

Hold escrow?

NO

YES - This will allow the overage to accumulate until there is enough "escrow" to load a wash.

NO - The escrow will be reset to \$00.00 after each transaction is completed. You will keep the change that could not be dispensed.

This feature sets the condition of how the machine will operate if an overage in payment can not be returned in the "Exact Change Mode" or if change can not be returned.

5.10.7 Allow exact change

Allow exact

change mode? YES

YES - If you want to keep your machine online even if it can not make change.

NO - If you want the machine offline if you can not make change.

5.10.8 Print voucher on error

print voucher

on error? NO

NO - This will not print a credit voucher if a dispenser error occurs. Credits will be transferred to the next available dispenser.

YES - This will print a credit voucher if a dispenser error occurs. No credits will be transferred to the next available dispenser.

5.10.9 Allow customers to use the machine as a changer

cash cancel

limit = 3

Enter the number of times you will allow a user to insert cash and then press the cancel button to get change. A zero will always allow the user to make change. Version 2.010 or later.

5.10.10 Bill acceptor tamper level

acceptor tamper

←low→

- **low** - Only bill acceptor detection will be used. If the bill acceptor detects a possible stringing attempt it will not issue credit. The System Controller will ignore all MDB codes that may indicate a possible stringing attempt.
- **medium** - The controller will ignore MDB codes that may indicate a possible stringing attempt only when there are no credits. If there are credits or a payout is in progress, the machine will shut down with a bill acceptor error.
- **high** - The controller will go offline if any MDB codes indicate a possible stringing attempt is being made. The machine will shut down with a bill acceptor error. No further transactions will occur until the machine is reset. Note: This will cause a tamper if a customer tries to insert a second bill before the first bill acceptance cycle is complete.

This sets the stringing level for all connected bill acceptors. Version 2.010 or later.

5.10.11 Expanded user programming

Expanded prog?

NO

This feature is intended for advance users only and for very unique machine operating requirements. We strongly recommend that this feature is not activated.

5.10.12 Disable card acceptor if cash accepted

Disable card if

cash used? YES

YES - If you want to disable the card reader if cash has been accepted. Money and credit can not be combined in a transaction.

NO - The cash may be dispensed to the customer or retained.

5.10.13 Display items that were dispensed

Display dispensed

Items used? NO

YES - If you want dispensed items to be displayed on the external display after a payout.

NO - If you do not want dispensed items to be displayed on the external display after a payout.

5.10.14 Date

current date
(m/d/y) 01/04/10

If incorrect, enter the current date. This must be correct for proper credit card and email operation.

5.10.15 Day of the week

day of the week
←Monday→

If incorrect set the current day. This must be correct for proper credit card and email operation.

5.10.16 Time

current time
(h:m) 10:45 AM

If incorrect set the current time. To toggle AM or PM use the numeric keypad while the cursor is under the A or the P. This must be correct for proper credit card and email operation.

5.10.17 Sleep Settings

This setting allows you to automatically place the machine in a sleep mode (offline) during periods of the day when you do not want it to be used or when it is not supposed to be used. One start time and sleep duration time setting is available for each day of the week.

5.10.18 Limiting Administrative Access

This is used to control access to certain feature groups based on a PIN identification number. This feature is used primarily when non-machine owners will have access to the machine. You can program up to six PINs to allow access to be able to view or view and edit machine features.

5.10.19 Location ID

This setting is use to set a unique identifier for each machine. This number will show up on audit reports to identify the location of the machine or can be used as a unique identifier for 3rd party card or POS systems.

5.10.20 GXP network address

GXP network
address 0

In some configurations two machines can be networked together and share information. This is usually done to share a POS system. An address of zero indicates that it is not networked. An address of one indicates that it is connected directly to the POS system. Entering a two indicate that it will verify its POS codes through GXP 1. Network address should not be duplicated.

5.10.21 GXP network last address

GXP network

last address 0

This is the number of machines that are networked. Currently only two are supported. This question is only asked if the machine is GXP 1.

5.10.22 Coin acceptor error takes the machine offline

*Disable if coin
errored? NO*

YES ó The machine will go offline if the coin acceptor has an error.

NO - The machine will continue to operate if the coin acceptor has an error.

5.10.23 Bill acceptor error takes the machine offline

*Disable if bill
errored? NO*

YES ó The machine will go offline if the bill acceptor has an error.

NO - The machine will continue to operate if the bill acceptor has an error.

5.10.24 Card system or card reader error takes the machine offline

*Disable if card
errored? NO*

YES ó If the machine loses communication to the card reader or if the card system has an error the machine will go offline.

NO - The machine will continue to operate if the card reader or card system has an error.

5.10.25 Disable the keypad and cash voices

*Disable keypad &
cash voices? YES*

YES ó Disables the audio for the numeric keypad and when cash is inserted.

NO ó The machine will say every numeric button press and for each coin and bill inserted.

5.10.26 Button Light Mode

*Btn Light Mode
←Flash Down→*

- **Flash Down** ó The button lights will flash individually starting from the top selection to the bottom selection and then repeat.
- **Flash Up** ó The button lights will flash individually starting from the bottom selection to the top selection and then repeat.
- **Flash Up Down** ó The button lights will flash individually starting from the bottom selection to top selection then back down to the bottom selection and then repeat.

- **Lights OFF** - All button lights will be OFF.
- **Lights ON** - All button lights will be ON.

Sets the way the selection buttons light when the machine is in an idle state.

5.10.27 Button Light Delay

Btn Light delay

0 secs

Enter the delay in seconds before the button light pattern will repeat. If you enter a 0 there will be no delay.

5.10.28 How can I take the GXP offline from outside the cabinet?

Offline code

0

Enter a four-digit code that can be entered through the numeric keypad. When entered it will place the GXP offline. Entering the code again will put the GXP online. Cycling power will also place the GXP online.

5.10.29 Credit Card Tax

Credit Card Tax

0.000%

Enter the percentage of tax to collect on credit card purchases.

5.11 Prompt Settings

A prompt is the message, voice and / or text, that is given to the user to instruct them on what to do next or to advertise something to them. The Welcome Prompt in particular can be a very effective advertising tool for letting users know that you are running a promotion. This section explains how to select a pre-programmed prompt (from a list of preset messages), create a custom prompt, or disable a prompt.

If your machine includes the optional voice module you will want to make sure the displayed message and voice message correspond to each other.

5.11.1 Changing a Prompt

To change a prompt selection you will first enter the Main Menu, find "Prompt Settings" and then press the down arrow button to find the prompt you would like to change. See the list below for the available prompts. You can set the prompt to one of the four preset prompts or you can set it to display a "custom" prompt or "no prompt". Also, if your machine is equipped with a Voice Module option you can play the voice prompt for each of the preset prompts to make sure it matches the displayed prompt. Both male and female voice prompts are available. You will need to specify which you would prefer when ordering the optional Voice Module.

There are 4 preset messages available for each prompt. The first message in the list of welcome prompts is labeled "Welcome 1". To view the text that will be displayed on the top line of the user display when this prompt is played, press the down arrow button. Note - If your machine is equipped with the optional Voice Module, the corresponding voice message will play at this time.

You should now see the portion of the prompt message that the user will see on the top line of the user display. Press the down arrow button again to see the portion of this message that will be displayed on the second line of the display. It is important to note that some messages are large enough that they cannot be displayed all at one time. When this occurs the user will see the first part of the message on the display and then the display will change to display the next part of the message. For large messages you will need to press the down arrow button multiple times to see the entire message that the user will see.

In addition to the four preset messages, the prompt can be disabled or a custom message can be created. Choosing the "Welcome None" message option will disable the Welcome Prompt. Choosing the "Custom" message option will allow you to enter a custom prompt message. See the section below for information about *Entering a Custom Prompt*.

Welcome Prompt - The welcome prompt is used to greet your customers when they pull up to the machine (if optional Proximity sensor is installed) or after the press a button or make a deposit. You can also disable this prompt by setting the it to "none"

- Welcome 1: "Hello"
- Welcome 2: "Welcome, have you checked out our specials today"
- Welcome 3: "Welcome"
- Welcome 4: (reserved for future expansion)
- Custom: (see section below for entering a custom prompt)

- Welcome None: (disable this prompt)

Up Sell Prompt -This prompt is used for advertising. It is played when a patron has purchased a wash but is being held (stacked) until the wash bay becomes available.

- Up Sell 1: öFor drying towels, window cleaners and air fresheners please visit our vending areaö
- Up Sell 2: öFor drying towels please visit our vending areaö
- Up Sell 3: öWe now have a pet wash bayö
- Up Sell 4: (reserved for future expansion)
- Custom: (see section below for entering a custom prompt)
- Up Sell None: (disable this prompt)

Exit Prompt ö This prompt is used primarily for instruction. It is played when a patron has purchased a wash and the wash bay becomes available.

- Exit 1: öThank you and have a nice dayö
- Exit 2: öDrive forward and have a nice dayö
- Exit 3: öHave a nice dayö
- Exit 4: öPlease wait for green light to pull forwardö
- Custom: (see section below for entering a custom prompt)
- Exit None: (disable this prompt)

Out Of Service (OOS) Prompt ö This prompt is a status prompt. It is played whenever the machine cannot process transactions and therefore requires service. If the machine was unable to complete a refund the amount owed to the user will also be displayed.

- Out Of Service 1: öPlease see attendant for car washö
- Out Of Service 2: (reserved for future expansion)
- Out Of Service 3: (reserved for future expansion)
- Out Of Service 4: (reserved for future expansion)
- Custom: (see section below for entering a custom prompt)

Offline Prompt ö This prompt is a status prompt. It is played whenever the wash bay is not available to use. This can occur when the machine is in the öSleep Modeö or when it is placed off line using the öremote offlineö feature available with the Alarm Dialer option.

- Off line 1: öWe are sorry, the carwash is now closedö
- Offline 2: öOur carwash is currently closedö
- Offline 3: (reserved for future expansion)
- Offline 4: (reserved for future expansion)
- Custom: (see section below for entering a custom prompt)
- Offline None: (disable this prompt)

5.11.2 Entering a Custom Display Prompts

If the available östandard display promptsö do not meet your needs, a custom prompt can be used. To create a custom prompt, press the down arrow while the display is at the öcustomö setting for the prompt. Using the User Keypad on the front of the machine, you can now enter the text message. Keep in mind that the user will see a top line and a bottom line on the User Display. Enter the text, including spaces, exactly as you want it to appear to the user. If the message is longer than two lines (top and bottom) you can enter additional message text on another display screen (top and bottom).

To get to the next display screen simply press the down arrow button. You can have up to 4 display screens. We recommend short and concise messages so the message is displayed quickly and is easily understood. Use the Display Template below to layout the custom prompt message you wish to display.

DISPLAY TEMPLATE

Top Line					W	E	L	C	O	M	E		T	O					
Bottom Line			S	U	N	S	H	I	N	E		C	A	R	W	A	S	H	

5.11.3 Custom Voice Prompts

Custom voice prompts are available. These can be added to the machine at any time. If the available standard display prompts do not meet your needs, a custom prompt can be provided. For custom voice prompts, contact the factory or your distributor.

5.12 Discount Type Settings

This is used to setup codes, tokens and coupons that can be used in all of your promotions. When used the name of the discount type will be used on the display and on receipts.

5.12.1 Discount Codes

Entering a discount code using the keypad can give a repeatable discount towards one or more washes. The discount can not accumulate.

Note ó the user must press the ðENTö button before the machine will process the code number.

There are three steps required to setup the discount codes:

- *identify* the number of different codes to be used
- *name* each code
- *create* the code numbers

The maximum number of discount codes is twenty.

Step 1 ó *Identify* the number of different discount codes to be accepted.

Step down into the menu until you see [maximum number] on the top line of the display and [of codes] on the bottom line. Enter the number of different discount codes you plan to use. Up to 20 different discount codes can be used. Setting this to zero will bypass setting up codes.

Step down in the menu after answering this question.

Step 2 - Setup a custom *name* for each different code used. Each code has a *generic label* and a *name* associated with it. The default *name* assigned to each code is the same as the *generic label*. Changing the name can make it easier to distinguish one discount code from another when you are viewing the

associated Promotion Audit. The audit totals will be listed under the *name* of the discount type, not the *generic label*. The top line of the display will now show [code 1 name], which is the *generic label* for this discount. The generic label cannot be changed, The bottom line of the display will show [CODE 1]. The cursor will be flashing under the first character of the *name*. You can now change the name using the text entry method.

Press the down button to go to the next step.

Step 3 ó *Create* the code number.

The display will show the code name you entered in step 2 on the top line and the bottom line will show [# # # #]. Enter the code number to be used. The code can only include numbers, no characters or symbols. The user code numbers can have as few as one number or as many as six numbers in the code. We recommend the code length be at least four digits long.

Press the down button to go to repeat steps 2 and 3 for each discount code.

5.12.2 Bonus Codes

Entering a bonus code using the keypad will give a one time discount to a wash. Bonus codes may be generated internally by the machine or they may be generated externally if you are using the CCII Internet. If the codes are internal only this machine will know about the bonus codes and other machines will not recognize the code. If you want to share bonus codes between machines this will require the bonus codes to be generated externally. This would require setting up CCII Internet.

There are three steps required to setup the bonus code discounts:

- identify the *number* of different codes to be used
- *enter* the number of days that the code will be valid
- *name* each bonus code

The maximum number of bonus codes that can be used is four.

Step 1 ó Identify the *number* of different codes to be accepted.

Step down into the menu until you see [maximum number] on the top line of the display and [of bonus codes] on the bottom line. Enter the number of different bonus codes you plan to use. Setting this to zero will bypass setting up bonus codes.

Step down in the menu after answering this question.

Step 2 ó *Enter* the number of days that the bonus code will be valid. The maximum number of days is 30.

Step down in the menu after answering this question.

Step 3 - Setup a custom *name* for each different code used. Each code has a *generic label* and a *name* associated with it. The default *name* assigned to each code is the same as the *generic label*. Changing the name can make it easier to distinguish one code discount from another when you are viewing the associated Promotion Audit. The audit totals will be listed under the *name* of the discount type, not the *generic label*. The top line of the display will now show [bonus code 1 name], which is the

generic label for this discount. The generic label cannot be changed, The bottom line of the display will show [BONUS CODE 1]. The cursor will be flashing under the first character of the *name*. You can now change the name using the text entry method.

Step down in the menu and enter a name for each bonus code you wish to use.

5.12.3 Coupons

This discount uses acceptance of paper coupons in the bill acceptor to either give a discount towards a wash or credit towards a wash.

***** **IMPORTANT** *****

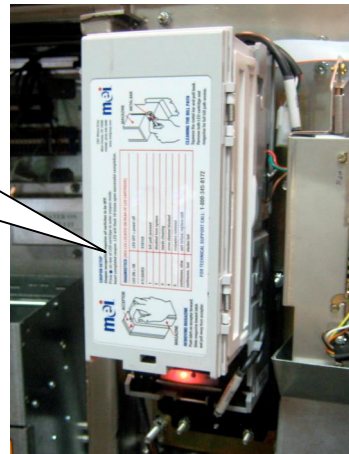
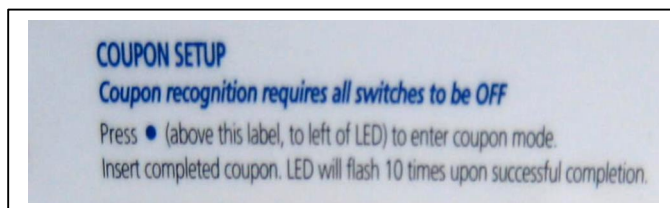
Only òFree Vendö coupons should be used in any bill acceptor that is installed in the GXP. This will prevent the possibility of òCash Valueö coupons being used to refund actual change (cash). Cash Value coupons are pre-encoded by MEI to be accepted as a \$1, \$5, \$10 or \$20 bill. Free Vend coupons are printed so they have òno cash valueö encoded in them. If you install an existing bill acceptor and are not sure if coupons were programmed into it, you should clear the coupon acceptance from the acceptor. For the procedure necessary to clear previously programmed coupons from the MEI bill acceptor, contact your nearest MEI or SCM service center.

There are five steps required to setup the coupon discounts:

- *train* the acceptor to recognize the coupons to be accepted
- identify the *number* of different coupons (different coupon designs) to be used
- *name* each coupon
- *determine* if it will be used as a credit or a discount towards a wash package(s)
- *programming* the GXP to recognize the coupon. Note - Up to four different coupons can be setup

The maximum number of coupons that can be accepted is four.

Step 1 - Program the MEI bill acceptor to accept the coupon. You must *train* the MEI bill acceptor to recognize the coupon when it is inserted. If you are using multiple coupons they can all be programmed during this step. The machine should be in the normal run mode (user mode) when training the acceptor to recognize the coupon. See the decal on the back of the MEI bill acceptor for directions. Follow the directions.



Step 2 6 Identify the *number* of different coupons to be accepted.

Each coupon trained in the acceptor is considered a *different* coupon. Step down into the menu until you see [maximum number] on the top line of the display and [of coupons] on the bottom line. Enter the number of different coupon types you plan to use. It is not unusual to use only one coupon type. Up to four different coupon types can be used. Setting this to zero will bypass setting up coupons.

Step down in the menu after answering this question.

Step 3 - Setup a custom *name* for each different coupon type accepted.

Each coupon type has a *generic label* and a *name* associated with it. The default *name* assigned to each coupon type is the same as the *generic label*. Changing the name can make it easier to distinguish one coupon discount from another when you are viewing the associated audit. The audit totals will be listed under the *name* of the discount type, not the *generic label*. The top line of the display will now show [coupon 1 name], which is the *generic label* for this discount. The generic label cannot be changed, The bottom line of the display will show [COUPON 1]. The cursor will be flashing under the first character of the *name*. You can now change the name using the text entry method.

Step down in the menu after answering this question.

Step 4 – Select if the coupon can give credit towards a wash package or it will give a discount to a wash package.

- If you select YES multiple coupons can be used towards the purchase of any wash package. This coupon will not show up as a selection in *Promotion Settings*, but it can be used towards the purchase of a wash package in a promotion. Next you must enter a value this coupon is worth. If cancel is pressed the user will not get change back for this credit.
- If you select NO only one coupon will give a discount to a wash package. If cancel is pressed the user will not get change back for this discount.

Step down in the menu after answering this question.

Step 5 6 Associate the coupon to the *generic label* you want to use for it.

The display will now show [coupon 1] on the top line of the display. The bottom line of the display will indicate if a coupon has already been *associated* with the *coupon 1* position. If the coupon has already been *associated* for this position the bottom line of the display will show [programmed]. If you are changing a coupon that was previously programmed in this position (coupon 1) or you are programming a new coupon in this position, then deposit one of the coupons into the bill acceptor at this time. Within a few seconds the bottom line of the display will show [programmed]. This indicates that the coupon is now associated with this position (generic label & name).

Press the down button to go to the next coupon at step 3

5.12.4 Tokens

This discount uses acceptance of the IDX tokens to either give a discount towards a wash or credit towards a wash.

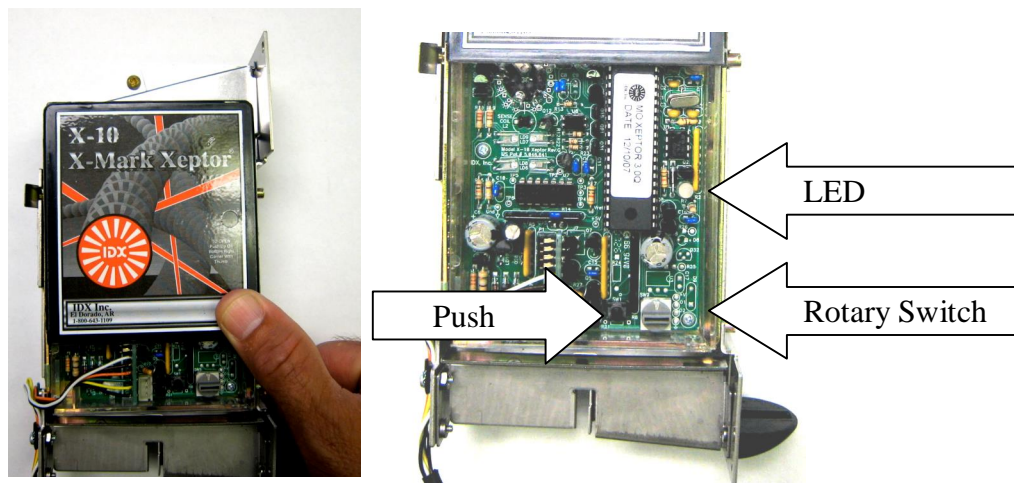
There are five steps required to setup the token discounts:

- *train* the coin acceptor to recognize the tokens to be accepted
- identify the *number* of different tokens (different token designs) to be used
- *name* each token
- *determine* if it will be used as a credit or a discount towards a wash package(s)
- programming the GXP to recognize the token

The maximum number of tokens that can be used is four.

Step 1 ó Program the IDX coin acceptor to accept the token(s). The following procedure is used to accomplish this. You will need 6 samples of each different token to be used. If you are using multiple tokens, all of them will be trained during this procedure. The coin acceptor can distinguish between 4 different token designs so up to 4 different token types can be used. When the acceptor has been trained for each different token type, proceed to the next step.

- Remove the coin acceptor assembly from the machine. The coin acceptor is held in by either four #6-32 nuts or two #10-32 nuts.
- With the acceptor plugged in, slide the front cover up using your thumb as shown below and identify the three controls to be used in this procedure; rotary dial, push button and LED.



- Set the rotary switch position for the first token. The first token will be rotary switch position 3. Position 3 is reserved for the generic label 'Token 1'. Note ó you will use position 4 for 'Token 2', position 5 for 'Token 3' and position 6 for 'Token 4' in future steps. **Coin programming note:** if you are training the acceptor to take quarter coins then use rotary switch position 1, use switch position 2 for \$1 coins.
- Press the black button once for Token 1, twice for Token 2, 3 times for token 3 and 4 times for token 4. **Coin programming note:** Press the black button once for Quarters and four times for \$1 coins.
- Very Important - Slide the cover back on the unit each time you are training a new coin to make sure outside light (sun light) does not interfere with the optical coin sensors.

- Deposit 6 of the same token. The LED should flash red-green a few times to indicate the token is stored.
- Turn the rotary switch to position 0. The LED should be green.
- Repeat the above steps for each token (or coin) to be trained. Be sure to change the rotary switch position to the corresponding generic token each time you program a new token.
- Slide the cover closed and install the coin acceptor into the machine.

Step 2 ó Identify the *number* of different tokens to be accepted.

Each token trained in the acceptor is considered a *different* token. Step down into the menu until you see [maximum number] on the top line of the display and [of tokens] on the bottom line. Enter the number of different token types you plan to use. It is not unusual to use only one token type. Up to four different token types can be used. Setting this to zero will bypass setting up tokens.

Press the down arrow button to proceed to the next step.

Step 3 - Setup a custom *name* for each different token type accepted.

Each token type has a *generic label* and a *name* associated with it. The default *name* assigned to each token type is the same as the *generic label*. Changing the name can make it easier to distinguish one token discount from another when you are viewing the associated audit. The audit totals will be listed under the *name* of the discount type, not the *generic label*. The top line of the display will now show [token 1 name], which is the *generic label* for this discount. The generic label cannot be changed. The bottom line of the display will show [TOKEN 1]. The cursor will be flashing under the first character of the *name*. You can now change the name using the text entry method.

Press the down arrow button to proceed to the next step.

Step 4 – Select if the token can give credit towards a wash package or it will give a discount to a wash package.

- If you select YES multiple tokens can be used to purchase a wash. Next you must enter a value this token is worth. This token will not show up as a selection in *Promotion Settings*, but it can be used towards the purchase of a wash package in a promotion. If cancel is pressed the user will not get change back for this credit.
- If you select NO only one token will give a discount to a wash package. If cancel is pressed the user will not get change back for this discount.

Press the down arrow button to proceed to the next step.

Step 5 ó Associate the token to the *generic label* you want to use for it.

The display will now show [token 1] on the top line of the display. The bottom line of the display will indicate if a token has already been *associated* with the *token1* position. If the token has already been *associated* for this position the bottom line of the display will show [programmed]. If you are changing a token that was previously programmed in this position (token 1) or you are programming a new token in this position, then deposit one of the tokens into the acceptor at this time. Within a few seconds the bottom line of the display will show [programmed]. This indicates that the coupon is now associated with this position (generic label & name).

Press the down button to go to the next token at step 3.

5.12.5 Discount Cards

This discount type uses up to the first six digits of a credit card for a discount. The user only has to swipe a matching credit card to receive the discount. They do not have to enter the number on the pin pad. The first six digits on a typical credit card indicate the issuing bank. This setting could also be used to give fleet/gift card users a discount.

There are three steps required to setup the discount cards:

- *identify* the number of different cards to be used
- *name* each discount card
- *enter* the card numbers.

The maximum number of discount cards that can be used is twenty.

Step 1 ó Identify the *number* of different cards to be accepted.

Step down into the menu until you see [maximum number] on the top line of the display and [of codes] on the bottom line. Enter the number of different cards you plan to use. Up to 20 different cards can be used. Setting this to zero will bypass setting up cards.

Step down in the menu after answering this question.

Step 2 - Setup a custom name for each different card to be used. Each card has a *generic label* and a *name* associated with it. The default *name* assigned to each card is the same as the *generic label*. Changing the name can make it easier to distinguish one card discount from another when you are viewing the associated Promotion Audit. The audit totals will be listed under the *name* of the discount type, not the *generic label*. The top line of the display will now show [disc card name], which is the *generic label* for this discount. The generic label cannot be changed, The bottom line of the display will show [DISCOUNT CARD 1]. The cursor will be flashing under the first character of the *name*. You can now change the name using the text entry method.

Press the down button to go to the next step.

Step 3 ó enter the card number.

The display will show the card name you entered in step 2 on the top line and the bottom line will show [# # # #]. Enter the card number to be used. This can only include numbers, no characters or symbols. The user card numbers can have as few as one number or as many as six numbers in the code. We recommend the card length be at least four digits long.

Press the down button to go to the next code at step 2.

5.12.6 One Time Use (OTU) Codes

One Time Use codes are meant to be given to customers if there is a wash bay error. They are not meant to replace a POS system.

There are three steps required to setup the OTU codes:

- identify the *number* of codes to be available
- *name* all of the OTU codes
- *create* the code numbers.

The maximum number of One Time Use codes that can be used is twenty.

Step 1 ó Identify the *number* of different codes to be accepted.

Step down into the menu until you see [maximum number] on the top line of the display and [of codes] on the bottom line. Enter the number of different codes you plan to use. Up to 20 different codes can be used. Setting this to zero will bypass setting up codes.

Step down in the menu after answering this question.

Step 2 - Setup a custom name for all of the One Time Use codes. The default *name* assigned to the OTU codes is the same as the *generic label*. Changing the name can make it easier to distinguish one code discount from another when you are viewing the associated Promotion Audit. The audit totals will be listed under the *name* of the discount type, not the *generic label*. The top line of the display will now show [OTU code], which is the *generic label* for this discount. The generic label cannot be changed, The bottom line of the display will show [OTU]. The cursor will be flashing under the first character of the *name*. You can now change the name using the text entry method.

Press the down button to go to the next step.

Step 3 ó Create the code number.

The display will show the code name you entered in step 2 on the top line and the bottom line will show [# # # #]. Enter the code number to be used. The code can only include numbers, no characters or symbols. The user code numbers can have as few as one number or as many as six numbers in the code. We recommend the code length be at least four digits long. This is also where you can see if the code has been used.

Press the down button to enter the next code.

5.12.7 Time Based

This is the simplest discount to create. Answer YES to allowing time based discounts. Your customer will get a discount based upon the amount you enter in the promotion and the time of the promotion.

5.13 Promotion Settings

An effective promotion can help you increase revenue. An effective promotion will provide the user with either a discount that can be applied toward the purchase of one or more of the wash packages you intend to promote, or with the ability to direct a "charitable contribution" toward a charity that you are collecting funds for. Multiple promotions can be offered during the same time period. When designing the promotion keep in mind that you can quickly check the effectiveness of a promotion by viewing the Promotion Audit Report associated with each promotion. It is helpful to give each promotion a different name so you can view the report associated with each promotion. Example: you can run a code based promotion and advertise it on a billboard at the same time you are running a code based promotion that is being advertised through a mass mailer coupon company. By using separate codes for each promotion you can determine which one is most effective by viewing the report for each promotion. Your distributor is a good source for help in developing a successful promotion. They can also assist in setting up any advertising that will be presented at the machine, i.e., the Welcome Prompt advertisement.

5.13.1 Planning a Promotion

Care should be taken to think through all of the factors related to developing an effective promotion. Below are the factors related to developing an effective promotion and marketing campaign. Review all of these before attempting to setup a promotion in the GXP machine. Once you have a well thought out plan, proceed to setting up the discounts using the Discount Type Settings menu and then setup the promotion using the Promotion Settings menu.

Identify the Goal Of the Promotion: Identify the overall objective of your promotion. It may take multiple promotions to obtain your goals. Common goals of a promotion are: to obtain new customers, maintain existing customers, promote new products and services to existing customers, get existing customers to utilize your wash during the slower periods (load balancing), and to cross promote for another nearby business so they do the same for you.

Advertising your promotion: **There are a variety of advertising methods that can be used to get the word out about your promotion. You should always consider using the Welcome Prompt and Receipt Printer to let existing customers know about your promotion. The Welcome prompt, text and voice, should let the user know about anything you are promoting at your site. The receipt printer can be setup to include a message that advertises your promotion as well. You can also use some of the advertising methods shown below.**

- Letters to local fundraisers like the school band.
- Radio & newspaper
- Mass Mailers
- Co-Marketing with another local business
- Direct Marketing to local charities ó schools, fundraisers
- Word of mouth ó secret code that no one knows about but be sure to tell everyone. Human nature is to take advantage of a good thing before it is gone.

Naming the Promotion: Give the promotion a name that you can easily recognize and distinguish. Common examples are: Early Bird Special, Night Owl Special, Coupon Promotion, Mailer Promotion. These names will show up on the Promotion Report and are helpful in distinguishing one from the other if multiple promotions are running simultaneously.

Duration of Promotion: Identify how long do you plan to run the promotion, start and end dates and times.

Type of Discount(s) to Use With the Promotion: A variety of *discount types* can be used with the GXP. Codes, Tokens, and Coupons are all discount types that can be used in a promotion. To identify the discount type best suited for your promotion, you must first determine the most economical and effective way to get the discount into the hands of the target customer. Another consideration is the advertising method you plan to use. The method for advertising the promotion is sometimes determined by the discount type media that you believe will be most effective. For example, if you want to bring new customers in to your site from nearby zip codes, a mass mailer service like Value Pack can be used to target specific zip codes. If mass mailers are the advertisement of choice then you will want to use Code Entry as the discount type. The advertisement coupon you have developed would identify the discount code the user would enter, the amount of discount they will receive for the wash package(s) you are promoting, and it would tell them where you are located. In this example it is neither practical nor economical to use tokens or bill acceptor coupons to promote your product.

Following is a list of discounts that can be used with the GXP machine.

- *Time of Day / Day of Week* ó ideal and economical way to load balance. Load balancing is where you encourage customers to use your wash during slow periods so full price customers are not turned away during peak usage periods.
- *Code* ó code that the customer enters on the keypad of the machine. Codes are ideal and economical way to *gain new customers*. It allows a user to enter a code and receive a discount off of any or all wash selections. Code based promotions are a very cost effective way to promote your automatic bay wash services. You can advertise a code promotion using billboards, newspapers, mailer coupons, etc. Codes can be 4, 5 or 6 digits long. A 4-digit code is typically used. It is important to note that the ðENTö (enter button on the user keypad) must be pressed after the user has entered the code. This instruction should be included in any advertising.
- *Tokens* ó security tokens made by IDX. Security tokens are ideal for providing a dissatisfied existing customer with a free wash.
- *Coupons* - Coupons are ideal joint marketing or mass marketing tool.
- *Discount Card* – Used to market with the local bank.

***** **IMPORTANT** *****

Only ðFree Vendö coupons should be used in any bill acceptor that is installed in the GXP. This will prevent the possibility of ðCash Valueö coupons being used to refund actual change (cash). Cash Value coupons are pre-encoded by MEI to be accepted as a \$1, \$5,\$10 or \$20 bill. Free Vend coupons are printed so they have ðno cash valueö encoded in them. If you install an existing bill acceptor and are not sure if coupons were programmed into it, you should clear the coupon acceptance from the acceptor. For the procedure necessary to clear previously programmed coupons from the MEI bill acceptor, contact your nearest MEI or SCM service center.

5.13.2 Setting Up a Promotion – Promotion Settings Menu

Up to 20 discounts can be applied during each promotion. Up to 16 promotions can be active at any given time. A promotion is typically defined as having a beginning date / time and an ending date/time and some number of discounts that apply during the promotion date/time period. Multiple promotions can be setup to run during the same time frame if more than the allotted discounts (20 total per promotion) are needed.

To set up a promotion you will first setup the discount types to be used. See the section of this manual titled ðDiscount Type Settingsö for directions on setting these up. Do this before proceeding with the Promotion Setup process. It is important to note that the user of the machine can only apply one discount toward the purchase of a given wash. They cannot for example, deposit two tokens, or a code and a token, or a code and a coupon, and receive multiple discounts toward the purchase of a single wash. If multiple discounts are deposited, the one that would provide them with the greatest value will be applied toward the wash purchase.

Note: If you have setup a coupon or token as a *credit* then the user can accumulate credit along with a discount used in a promotion.

After the Discount Type Settings are setup, find the ðPromotion Settingsö menu. Drill down into this menu and answer the questions using the information from the promotion that you have designed. You will be asked some basic questions related to which days of the week the promotion will be active, how long during the day it will be active, and which discount types will be applied during the time that the promotion is active. If at any time you have a question just press the help button (# / ENT) button on the user keypad.

Important Notes:

- Remember that it is very important to design the promotion on paper before trying to set it up in the machine.
- It is a good idea to clear the promotion audit after you have made a change to it so your accounting starts at zero.

5.13.3 Programming Steps:

- Enter the Main Menu mode by pressing the two red buttons simultaneously on the EF Module (controller in machine) and holding them for three or more seconds.
- Using the right arrow button find the *Promotion Settings* menu item.
- Using the down arrow button drill down into the *Promotion Setting* menu until you find the *edit promotion?* question and answer Yes (button 9 on user keypad). If this is your first time you will be prompted to create a promotion.
- Enter an answer for each question and then press the down arrow button to proceed to the next one. Following is a list of the entries you will make. Remember that there are only four types of entries and each can be quickly identified by the message on the display. See the section of this manual titled *Menu Entries / Questions* for directions on how to enter information into a menu.
- Below is a list of the questions you will be asked:
- *enter name* ó enter the name of your promotion.
- *promo begin* ó enter the date the promotion will start.
- *promo end* ó enter the date your promotion will end. If you do not want to set an actual end date just set it very far into the future.
- *Sunday* ó enter the duration the promotion will run on Sundayø. IF you want it to run on Sunday answer Yes button (button 9 on user keypad). Next answer if you want it to run all day. If you select No then you will be prompted for a starting time and an ending time. Repeat this for each day of the week.
- *use/edit discount?* - This is where you select a discount type that will be valid during the promotion. The discount types are: time, code 1-20, bonus code 1-4, coupons 1-4 and tokens 1-4, discount card 1-20 and One Time Use (OTU) codes 1-20. If the discount type displayed is not the one you want to apply then answer No (button 6 on user keypad). Step through each discount type until you find the one (or ones) you want to apply during this promotion. Press the Yes button (button 9 on user keypad). Note ó if you select *Time* as the discount type, the time you set for the promotion is the time the discount amounts (next step) will be active.
- *Selection 1 \$X.XX \$x.xx discount off* this is where you enter the discount to the wash package you are viewing. The wash name will appear here along with the normal price of the wash package. Enter the amount of discount to be applied. If this wash package will not be discounted then leave the discount amount set to zero. Repeat this for each wash package. Press the down button to advance to the next step.
- *Selection 1 \$X.XX \$x.xx to charity* this is where you enter the amount to go to a charity for the wash package you are viewing. The wash name will appear here along with the normal price of the wash package. Enter the amount of to go to the charity. If money will not be applied towards a charity then leave this amount set to zero. Repeat this for each wash package. Press the down button to advance to the next step.
- *Enable Promotion* ó This is the last step. You can activate the promotion at this time if it uses *time* based discount types or if you have already programmed (associated) the coupon, code or tokens with the generic labels for each. You can also come back later and disable this promotion without clearing everything you have entered.

5.14 Bill Dispenser Settings (BX model)

This menu should only be used if you have a bill dispenser connected to the control board at connector J8. If you make a change to the bill dispenser model or value of the cassette it will be necessary that you reset the control board before these changes can take affect in the rest of programming.

Note: Cassette one is at the top of the bill dispenser.

The following setup procedure applies to version 3.040 and higher of the Controller (EFII) Module

5.14.1 Bill Dispenser Model

dispenser model

←none→

- **none** – A bill dispenser is not connected
- **F50 (1) cassette** ó A Fujitsu model F50 bill dispenser is connected. This model only has one cassette.
- **F53 (2) cassette** ó A Fujitsu model F53 bill dispenser is connected with two cassettes.
- **F53 (3) cassette** ó A Fujitsu model F53 bill dispenser is connected with three cassettes.
- **F53 (4) cassette** ó A Fujitsu model F53 bill dispenser is connected with four cassettes.

5.14.2 Cassette Value

cassette 1

value \$0.00

Enter the value of the coupon or bill loaded in the cassette.

5.14.3 Cassette Type

cassette 1 type

←bill→

- **bill**
- **coupon**

Multiple choice between bills and coupons.

5.14.4 Cassette Low Count

cassette low count

30

Enter the number of bills or coupons that can be dispensed past a sold out condition. Do not set this count too high as it will allow the dispenser to run empty which could result in a short pay to the user if the machine cannot transfer the unpaid balance to another dispenser. This applies to all of the cassettes.

This feature is typically used to decrease the number of bills remaining in a bill dispenser compartment (cassette) before it reports that it is sold out. Use this to allow between 0 and 255 additional bills to be dispensed after the bill compartment senses it is sold out. The number of bill remaining after the bill compartment senses a sold out will vary depending on the condition of the currency being used.

5.14.5 Cassette Override

cassette override 1

NO

YES ó This will allow this cassette to dispense every bill before the next cassette with the same bill value is activated. The cassette will dispense until it is empty.

NO ó The cassette will use its internal sold out detector to determine when the cassette is empty.

This feature can be used to maximize the dispense capacity of bill dispenser that has two or more cassettes loaded with the same value of bill. Setting the "override" to YES for a cassette will disable the sold out detector and allow the 40-70 bills that typically remain, to be dispensed. This feature will allow one cassette to dispense every bill before the next cassette with the same bill value, is activated.

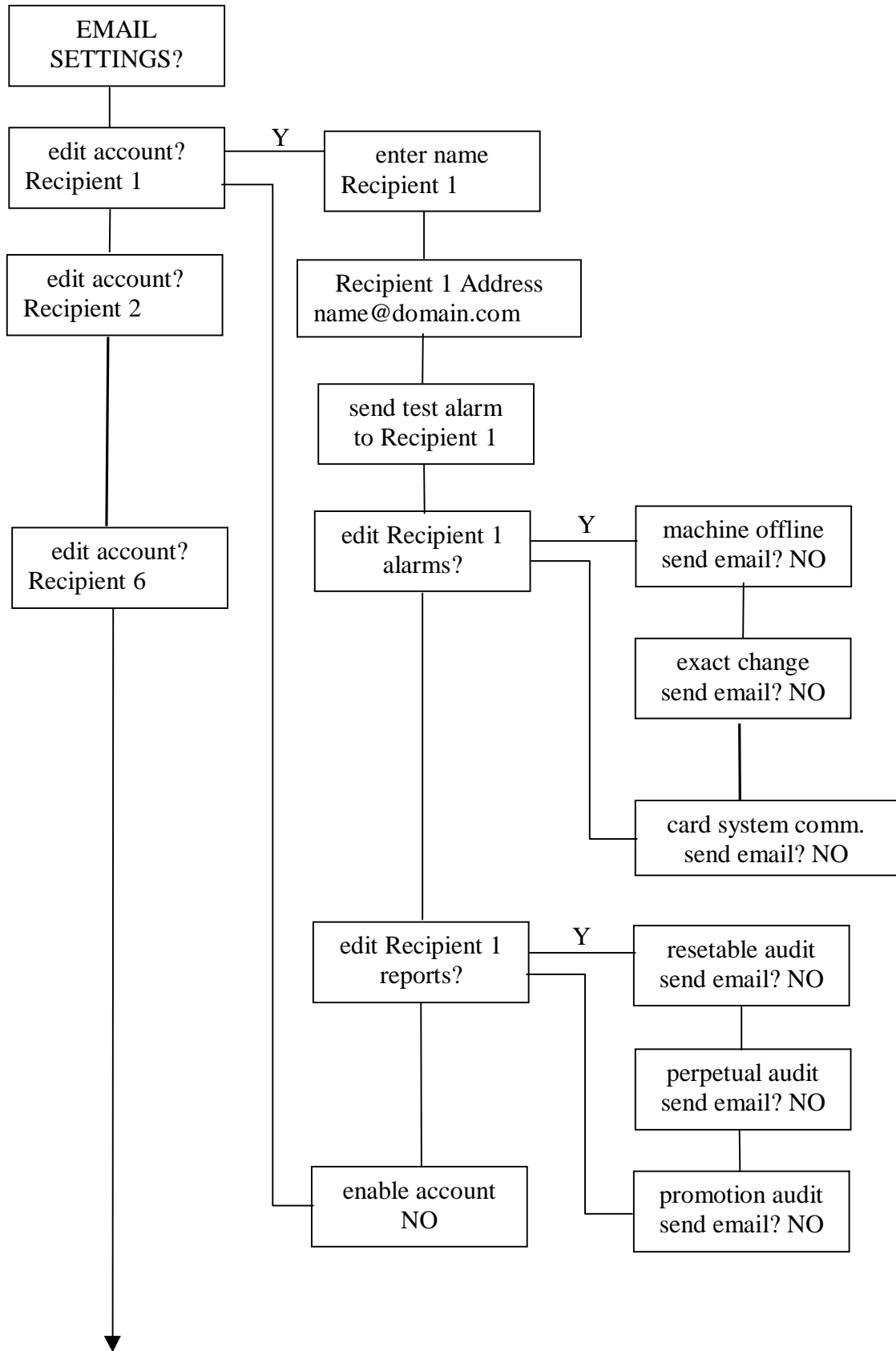
Note: This applies to coupons also. Coupons and bills of the same value are treated separately.

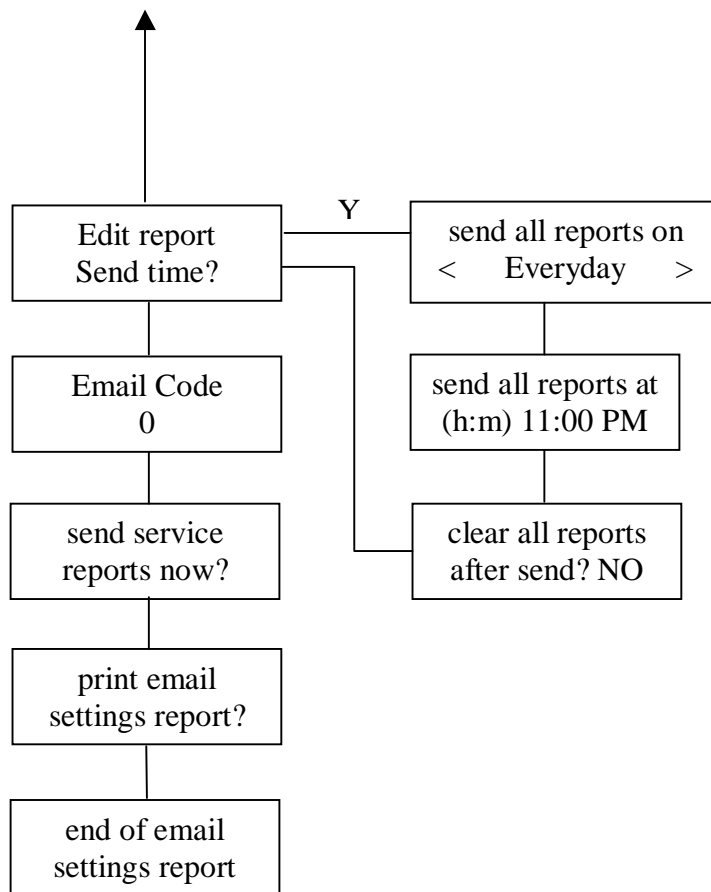
5.15 Email Settings (software version x.xxxE)

"Email Settings" can be found near "Other Settings." You can enter up to six email recipients to receive reports and alarms. All reports are sent at the same time. You can receive alarms and reports on your smart phone. The reports will be more useful and readable if received on a computer. It is important that the GXP is connected to a router so that it can acquire an IP address. The IP address can be viewed in the "Configuration Report". The email capability requires an x.xxxE version and can not be used with WashGear, WashCard or SitePRO.

The email settings can be protected from edit and/or viewing by using a PIN. This is found in "Other Settings".

Select the account you wish to edit. They can be in any order. Reports and alarms are sent out starting with Recipient 1 and ends with Recipient 6.





5.15.1 Recipient

Name - You can change the name from the generic "Recipient" to a more recognizable name. This is only for your reference.

Address - Enter the email address to receive the reports and alarms. If you want to send reports or alarms to your smart phone as a text message please see the section on Free Email to SMS Gateways. The "@" can be entered by pressing the zero key multiple times.

Test Alarm - By pressing the YES button (number 9) you will send a test alarm to the email address you entered in the previous step. Please watch the emailing process to ensure that the email was sent correctly. As long as the address resembles [name@domain.extension](#) and you have a good connection the email will be successful so check your spelling. If there is an error make a note of the error message. Some of the possible errors are listed below.

5.15.2 Alarms

All alarms default to NO. If you wish to receive an alarm press the YES button (number 9). You will receive the alarm when condition is activated and an alarm when the condition is deactivated, if the deactivated is available.

Machine offline . Offline is sent if the GXP has an error that prevents it from operating. Online is sent when the error causing the offline goes away.

Exact Change ó Exact Change Active is sent if all dispensers are sold out or in error. Exact Change Not active is sent if one or more dispensers become not sold out or in error.

Door Status ó A door switch kit can be connected at J6 to monitor when the GXP door is opened and closed.

Reset Pressed ó Only sent if the reset button on the GXP is pressed.

Power Returned ó Only sent when power returns to the GXP.

Credit Card Low ó This will send an alarm when the number of cash transactions with out a credit transaction exceeds the "card usage" setting under credit settings. As an example the default setting is 20. If 20 cash transactions occur with out a single credit card transaction occurring the alarm will be sent. When a credit transaction occurs the credit card usage normal alarm will be sent.

Bill Acceptor Error ó Any bill acceptor error.

Printer Error ó Sent if the printer runs out of paper.

Fast Vend ó This will send an alarm if the Bill Fast Vend levels are exceeded. A Bill Fast Vend error will take the GXP Out Of Service and will require a reset to remove the error. The Bill Fast Vend levels can be changed in "CARD AND BILL FAST VEND SETTINGS".

Card Reader Communication ó "card reader communication bad" is sent if communication is lost to the card reader. "card reader communication good" is sent when communication returns.

Card System Communication - "card system communication bad" is sent if communication is lost to the card system. "card system communication good" is sent when communication returns.

5.15.3 Reports

The sending of reports default to NO. If you wish to receive a report press the YES button (number 9). The reports being sent are the same as the reports viewed and printed at the GXP.

Resettable Audit ó This is the same summary audit that can be viewed or printed at the GXP. If the report is cleared at the GXP then the report that you receive will be cleared.

Perpetual Audit ó This is the same summary audit that can be viewed or printed at the GXP. This can only be cleared at the factory. Eventually the numbers will rollover at 10,000. You will have to do the math accordingly.

Promotion Audit ó This is the same as the Summary Promotional Audit at the GXP.

5.15.4 Enable Account

Please enable the account to receive any of the reports and alarms that you have set. The sending of reports and alarms to an account will be turned off if this is set to NO.

5.15.5 Report Send Time

It is necessary that the GXP has power at the time the reports are to be sent. If the GXP does not have power during the Report Send Time you will not receive your reports.

Day ó Select the day of the week to send the reports. If "None" is selected no reports will be sent. This can be useful if you only want to send reports using the Access Code. "Everyday" is the selection to choose if you want to receive reports seven days a week.

Time ó Enter the time of the day that you want to send the reports. It is recommended that the reports go out after closing. The time is a 12 hour clock. Pressing any numeric button while the cursor is under the A in AM or the P in PM will cause it to toggle.

Clear All Reports ó After the reports are sent the reports that were sent and that can be cleared will be cleared at the GXP. This will affect anybody viewing or printing the reports at the GXP.

5.15.6 Email Code

By entering up to a six-digit number you can force an immediate sending of the selected reports. The Clear All Reports flag will not cause the reports to be cleared as it does when reports are sent with the Report Send Time.

5.15.7 Send Service Reports

This is a built in feature that will email the needed reports to the service department so they can help you with your problem. The problem could be something other than an email problem. Please contact the service department about your problem They will not contact you upon receipt of the email. It also helps to have a location ID entered in Other Settings so the reports can be identified.

5.15.8 Free Email To SMS Gateways (Major US Carriers)

Alltel

[10-digit phone number]@message.alltel.com

Example: 1234567890@message.alltel.com

AT&T (formerly Cingular)

[10-digit phone number]@txt.att.net

[10-digit phone number]@mms.att.net (MMS)

[10-digit phone number]@cingularme.com

Example: 1234567890@txt.att.net

Boost Mobile

[10-digit phone number]@myboostmobile.com

Example: 1234567890@myboostmobile.com

Nextel (now Sprint Nextel)

[10-digit telephone number]@messaging.nextel.com

Example: 1234567890@messaging.nextel.com

Sprint PCS (now Sprint Nextel)

[10-digit phone number]@messaging.sprintpcs.com

[10-digit phone number]@pm.sprint.com (MMS)

Example: 1234567890@messaging.sprintpcs.com

T-Mobile

[10-digit phone number]@tmomail.net

Example: 1234567890@tmomail.net

US Cellular

[10-digit phone number]email.uscc.net (SMS)

[10-digit phone number]@mms.uscc.net (MMS)

Example: 1234567890@email.uscc.net

Verizon

[10-digit phone number]@vtext.com

[10-digit phone number]@vzwpx.com (MMS)

Example: 1234567890@vtext.com

Virgin Mobile USA

[10-digit phone number]@vmobl.com

Example: 1234567890@vmobl.com

5.15.9 Steps in sending an email

"connection" - making a connection to the email server

"hello" - initial handshaking to the server

"authorization" - sending the username and password, this is for our server

"from" - sending the from information, this would be "report@guardianxp.com"

"recipient" - this is the email address entered by the owner

"message" - created by the GXP, this would be the report or alarm

"termination" - terminating the data

"closing" - closing the email connection to the server

5.15.10 SMTP Error codes

These are some of the possible errors that could be returned by our server and displayed if an error occurs.

220 - service ready

221 - service closing

250 - requested action taken/accepted

251 - recipient not local message accepted

252 - recipient not verified will attempt to deliver

354 - start of message input end with <CRLF>.<CRLF>

421 - not available
450 - requested command failed, mailbox unavailable
451 - command aborted server error
452 - command aborted server has insufficient storage

500 - syntax error
501 - syntax error in arguments
502 - command not implemented
503 - bad sequence of commands
504 - parameter not implemented

550 - mailbox unavailable
551 - recipient not local server gives forward address to try
552 - storage exceeded
553 - mailbox name invalid
554 - transaction failed

5.15.11 Troubleshooting

- If there isn't a local IP address in the Configuration Report email will not work. This should happen automatically when you connect the GXP to your router.
- There is a 30 second time out for the initial connection of email.
- You will receive a "No server Ack" if there is not an ethernet connection.
- A server error will be displayed as a combination of the step in the sending an email and the SMTP error code. An example error is shown in figure 2 if the "to:" is left out of the email address.

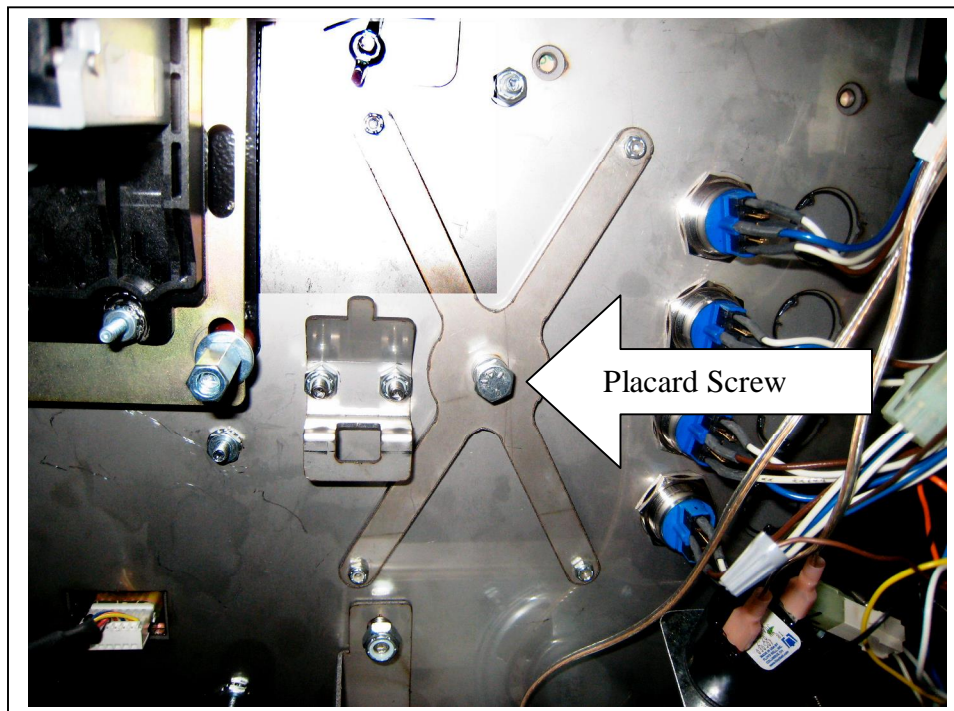
recipient 550 5.1.1

figure 2

6.0 REPLACING THE PRICING PLACARD

The pricing placard is simple to make and to replace. You can use a simple text editing program like Microsoft Word to design the new placard and then you can laminate it for water protection. Use black inks in place of color ink, as the black will hold up longer when exposed to the UV rays from the sun. To replace the old placard simply release the associated placard screw on the back of the cabinet until the placard is free enough to slide out of the holder. It is not necessary to remove the screw, just loosen it. Remove the old placard and install the new one and then tighten the screw securely. See the picture below for details.

If you wish to create your own placard you can download a placard template from <http://www.standardchange.us/manuals.html>



7.0 TROUBLESHOOTING & MAINTENANCE

7.1 Condition Overview

General error conditions that occur in the *machine* will be shown on the user LCD display as soon as the *Menu Mode* is accessed. These errors along with other *events* can be viewed or printed from the Event Report menu. These are general error conditions that were encountered by the *machine*. A complete list of these errors is listed in the Machine Troubleshooting Chart found in section 12.1.5.

Some modules included in the machine can also report more details pertaining to their own error condition. The reporting methods used to identify these are referred to as *Flash Codes* because they use a series of LED flashes to provide troubleshooting information. As an example, a complete list of dispenser error *flash codes* is listed in the Flash Codes & Troubleshooting Chart in section 12.1.8 of this manual. The MEI bill acceptor used in the Guardian XP has a decal on the bill cassette, which includes a list of flash codes for that device.

Machine error conditions can either be *Soft Errors* which are errors that DO NOT result in the machine going out of service, or *Hard Errors* which are errors that DO cause the machine to be placed out of service. *Help* for some error conditions can be accessed much the same way as accessing the Help for Setting or Report menu items. To view the help information, press the *ENT* (same as Help) button on the user keypad while viewing the error condition. If you do not see the troubleshooting help information on the display after pressing the *ENT* (Help) button then additional help information has not been included for the error condition you are troubleshooting.

7.2 Viewing Machine Errors

To view a machine error you must first enter the *Main Menu* mode by pressing the two red buttons on the main control module and holding them for a minimum of 3 seconds. Upon releasing the buttons you will see the most recent error displayed on the User Display of the machine. If multiple errors exist, you can view the next one by pressing the Right Arrow button (selection 2 button). Repeat this until you see the *Main Menu* screen.

7.3 Resetting Machine Error Conditions

Error conditions can be cleared by first resolving whatever *caused the error*, and then pressing the button labeled *RESET* on the main control module. To determine the *error cause*, you must first identify the device that is in error. When entering the Main Menu mode, the device in error is shown on the top line of the display. If there are multiple devices of the same type, it may be necessary to view the flash code LED on each of the devices to determine which one caused the error.

7.4 Configuration Report

The configuration menu is a powerful tool that can be used in diagnosing the root of most failures. The main control module of the Guardian XP communicates to all other components connected to it through serial communication. By simply viewing the Configuration Menu, you will be able to determine what components are available in the system, including information on the component type and software revision. Other information such as the Internet IP address for machines with an optional IPTran for high-speed credit card transactions and third party card systems can be viewed, as well as a POS systems if applicable.

To access the Configuration Menu, enter the Main Menu and press the left arrow (selection 3 button) to “Configuration Report”. Press the down arrow button (selection 4 button) to view the report and verify all the components found in the machine are displayed in the report. If any component is not being displayed, (example –No Bill acceptor found) check that component for failure. Most components will also have a status indicator for more detailed troubleshooting.

7.5 Machine Troubleshooting Chart

Shown below is a list of the *Error Conditions*, probable causes, and corrective actions for machine error conditions. Note that some of the error conditions indicate that you should contact the nearest factory authorized service center.

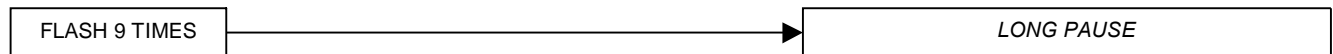
"SOLDOUT"	Indicates a dispenser does not have enough product to complete a vend. Check device.
"EMPTY"	A dispenser did not dispense in the allowed time and was not detected as sold out. Check device.
"JAMMED"	A dispenser is jammed and unable to dispense. Check device.
"PROGRAM"	Note the device in error and contact the nearest factory service center.
"EEPROM"	EEPROM failing. Note the device in error and contact the nearest factory service center.
"MOTOR"	Device has reported a motor error. Note the device in error and contact the nearest factory service center.
"SENSOR"	If device in error message is a bill acceptor, clear the bill path and clean sensors. If device in error message is a coin dispenser, contact the nearest factory service center.
"ROMö	Note the device in error and contact the nearest factory service center.
"PLC RUN"	The PLC operating mode switch is not in the run position.
"BILLBOX"	The bill acceptors' billbox has been removed. Replace the billbox then press the reset button on the control module to clear the error message.
"BILLBOX FULL"	The bill acceptor billbox is full.
"OVERPAY"	A dispenser has detected an overpay. Check device for debris at the output sensor.
"FAST VEND"	The total number of bills accepted has exceeded preprogrammed limit in the preprogrammed allowable time period. Adjust the Fast Vend Settings if necessary.
"TAMPER"	The bill acceptor has detected a stringing attempt. Clear the bill path and clean sensors.
"PLC DEVICE öEF öCOMM LOST"	The control module can not communicate to the PLC. Check the cables connecting these two devices.
"POWER LOST"	Power was lost during a dispense. This is a "soft error" and the machine will stay online. Check all power connections in the machine. If this error condition occurs frequently, have the power source to the machine checked for faulty wiring, poor grounding, etc and add a power surge filter (same as used for computers) to the machine.
öILLOGICALö	Bills accepted and/or vend settings conflict with standard operating patterns. Common examples: No bills programmed to be accepted or revenue to be dispensed exceeds the value of the revenue to be deposited. Check ALL Vend and Accept settings.
"BILL ACC. - EF"	This message is displayed if the control module doesn't see any acceptor (Bill or Coin) in the system. Check acceptor cables and connections.
"PLC DEVICE öEF öWASH EQUIP"	The wash equipment has not acknowledged the wash or an error has been returned from the wash equipment.
öETHER DEVICE öEF NETWORK ERRORö	Most likely a bad or disconnected ethernet cable.
"ETHER DEVICE öEF öCOMM LOST"	The control module can not communicate to the XPort ethernet device. Contact our service department for a replacement.

7.6 Viewing Dispenser Errors (not BE or DLR models)

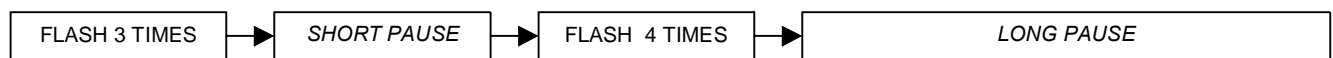
If an error condition is present on any dispenser, the *status LED* will be flashing at a rate of one flash per second and there will be a brief delay (LED will be off for approx. 3 seconds) between consecutive flashes. This flash pattern indicates an error condition. If this occurs, count the number of flashes between the pause. Do this several times to verify the correct *Flash Code* (number of consecutive flashes before the pause). Refer to the FLASH CODE DECAL easily viewable on the front of the junction box cover directly above the coin dispenser.

Following are examples of a dispenser flash code:

EXAMPLE OF A FLASH CODE ERROR 9

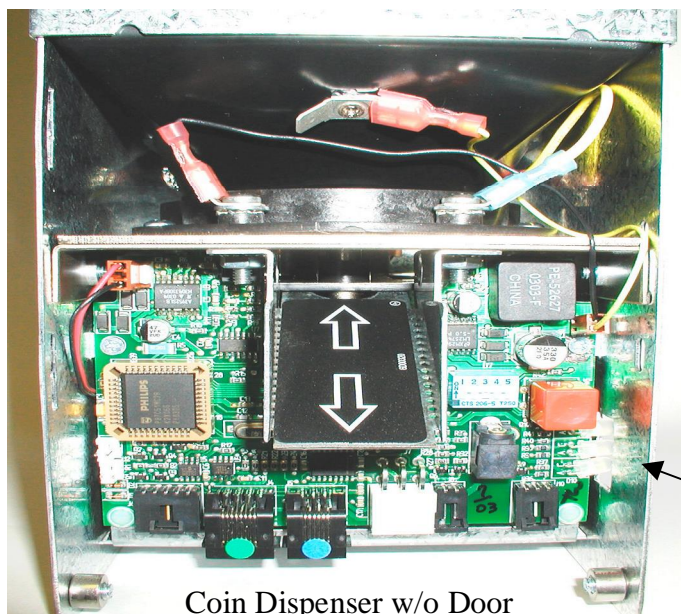


EXAMPLE OF A FLASH CODE ERROR 34



7.6.1 Flash Code Troubleshooting

Flash Code Troubleshooting - The purpose of Flash Codes are to assist you in troubleshooting failures that may occur during normal usage, and that do not require factory repair. *Example: a bent coin or a coin bag string that is stuck in the coin dispenser mechanism.* If you cannot resolve the issue in the field, contact your nearest service center or send the faulty module in for repair. Be sure to include a note that indicates the flash code error that was displayed as well as a detailed description of the circumstances (clues) surrounding the failure. These clues will assist the technician in quickly and accurately diagnosing the fault. This will ultimately reduce the cost of the repair.



LED Indicators

Each dispenser's control board has three LED indicators to help determine the statuses of that device. The top LED (yellow) is a status light that will display a flash code error if the dispenser is in fault. The middle LED (green) is the power LED and should be on whenever power is applied to the device. The bottom LED (red) turns on whenever the coin sensor is blocked.

STATUS LIGHTS

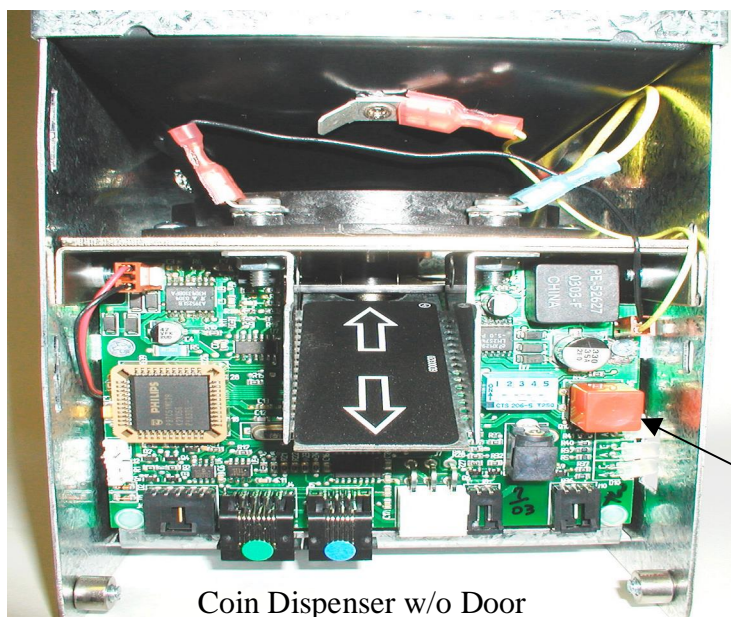
7.6.1.1 Dispenser Flash Code Chart

Flash Code	TROUBLESHOOTING HELP & COMMON FAILURE SOURCES
1	THE DISPENSER IS SOLD OUT. This is a normal operating condition and it indicates that the dispense compartment needs to be refilled. Once refilled the error condition will automatically go away (reset). If this error is issued and the device is not sold out (near empty), check the device sold out sensing contacts / circuit for debris.
2	A BILL ACCEPTOR ERROR WAS DETECTED. The bill acceptor has detected an error. Check the items listed below. If this does help identify the problem source, note the flash code displayed on the bill acceptor and refer to the bill acceptor owners' manual for additional troubleshooting assistance. <ul style="list-style-type: none"> • Ensure the bill acceptor cable is plugged in properly. • Check the data cable (gray phone style cable labeled 4C00299) to ensure it is plugged in properly. The cable is color coded at each end. Be sure the blue cable end is connected to the blue connector on the circuit board.
3	THE BILL STACKER IS MISSING OR FULL ó Empty the Bill Stacker and press the reset button on the Primary Device. If the problem persist, remove the bill stacker and look for dirt or debris in the acceptors bill path. Reinstall the bill stacker, making sure it latches securely in place.
4	A BILL JAMMED ERROR ó The bill acceptor has detected a stuck bill or foreign object in the note path (path bill travels through the Note Acceptor). Remove the item from the note path. Note: If this problem persists, check the note path drive roller system for excessive wear (missing, cracked or stretched) on the belts or O-rings. Clean or replace as necessary.
5	A FAST VEND SHUT-OFF ERROR ó An abnormal sequence (quantity in certain time period) of bills was deposited and the machine was automatically disabled. See section of this manual that discusses the Fast Vend Shut-off setting, for more details regarding this feature.
6	STRINGING WAS DETECTED ó The stringing detection software has determined that a bill has been pulled out or attempted to be pulled out. Look for string, tape or debris. Balance (reconcile) your machine revenue.
7	A COIN ACCEPTOR ERROR WAS DETECTED. Check to ensure that a bent coin or piece of debris is not interfering with the coin deposit path. Check the associated cable (s) and connections.
8	A DISPENSER ERROR WAS DETECTED. <ul style="list-style-type: none"> • If the Sold-Out contacts for the dispenser have been bypassed, this error will occur when the dispenser becomes completely empty. Press reset after refilling the dispenser. • Check for debris in the dispense path of the associated dispenser - If blocked or dirty, remove debris. Check the counting optics (device eyes) and remove excessive dust or debris. Check the associated cable (s) and connections. Check the dispensing mechanism for debris - bent coin, coin bag string, stuck billí
9	A FATAL MEMORY ERROR WAS DETECTED ó Warning: the memory device that stores all critical setup information (dispense amounts, security settingsí) is failing. DO NOT reset the associated device or place it back into operation!!! Replace the device logic board or send it in for repair with a note stating the following ó <i>“The EE memory has failed and will need to be replaced”</i> .
10	POWER FAULT DETECTED ó Power was lost during a dispense. Check for intermittent connections or a faulty power line condition, i.e. loose plug, corroded connections, or too much load on one circuit. Warning: Power faults can result in short pays.
11	AN UNKNOWN OR UNDOCUMENTED ERROR WAS DETECTED ó Contact a service center for an updated error code list, and/or reset the machine and check for proper performance before placing back into service.
12	ILLOGICAL ó An illogical setup was detected. Examples ó All bill acceptance is turned off, the dispenser type is invalid, the dispenser was told to dispense more than 200 öthingsö.
13	DATA BAD ERROR ó The machine has lost a portion of temporary memory. This error is not fatal and the machine will remain on-line. If a vend was in progress when the error was detected, the vend amount and associated count were cleared. This error is typically caused by excessive power surges. Install a surge filter on the power line to the machine.
14	OVERPAY LOGIC ERR – The device calculated it was told to dispense to many items. Check Dispense

	limit settings for the affected device. Check the Program settings.
15-30	TRACKING CODES ó These codes are intended for use by SCM troubleshooting personnel. If code persists, contact the nearest SCM service center.
31	DISPENSER OUTPUT BLOCKED – The dispenser (coin, bill, ticket) sensor is blocked. Check the dispenser counting sensor and associated connections.
32	DISPENSER IS EMPTY – The dispenser (coin, bill, ticket) is empty. If dispenser is not empty, check the sold out sensor connections.
33	DISPENSER IS JAMMED – The dispenser (coin, bill, ticket) is jammed. Check the dispense path.
34	DISPENSER HAS OVERPAID – The dispenser (coin, bill, ticket) has issued an extra item. Check for debris mixed in with the coins or bills. Debris can be counted as an extra “item”. If the error is from a ticket dispenser, check the tickets for tears in the area around the ticket notch. Extra notches (tears) can be counted as a ticket.
35	BILL DISPENSER COMMUNICATION ERROR ó The bill dispenser is not talking. Check the communication (data) cable connections. Make sure the dispenser has power to it as well.
36	Not Used ó Contact factory if error persists after resetting.
37	Not Used ó Contact factory if error persists after resetting.
38	Not Used ó Contact factory if error persists after resetting.
39	BILL DISPENSER CARTRIDGE IN WRONG POSITION ó One of the bill cartridges in a multi-note dispenser is in the wrong position. Check position of all bill cartridges.

7.6.1.2 Resetting Dispenser Error Conditions

You can either reset a dispenser error condition by pressing the red reset button on the dispenser board or you can press the Machine reset button on the main control module.



Coin Dispenser w/o Door

Reset Button

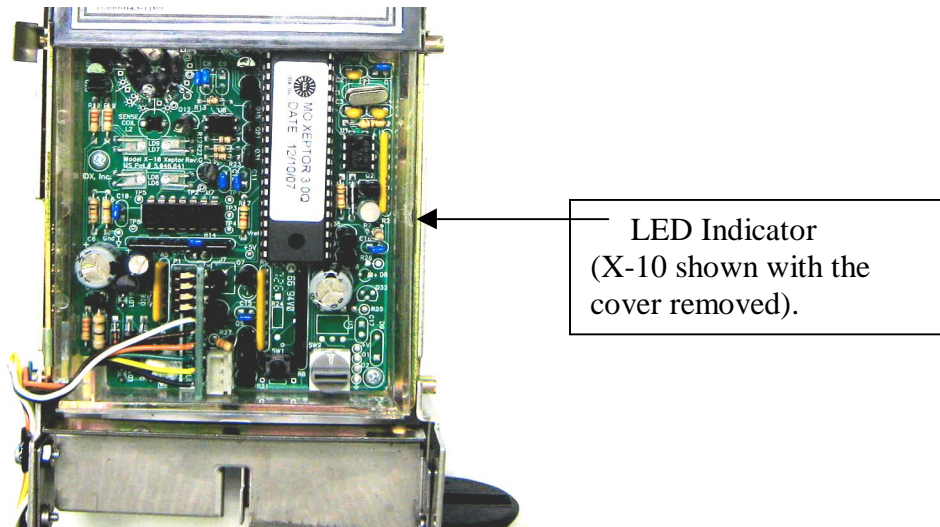
Each dispenser is equipped with a *push button* that can be used to reset the dispenser from an error condition. It is only necessary to reset the coin dispenser that is displaying the error flash code. Allow at least 45 seconds after releasing the button, for the entire reset process to be completed. The flash code should change back to the steady flashing pattern if the error was successfully reset.

RESET BUTTON

7.7 Coin Acceptor Troubleshooting (not BE or DLR models)

The coin acceptor used in the Guardian XP is the IDX-X10 coin acceptor. This coin acceptor includes a troubleshooting LED indicator to aid in programming and troubleshooting this device. The status for each LED color and condition is shown below.

- Steady Green ó Normal.
- Steady Red - Program switch is in a position other than 0 (normal run position)
- Flashing Yellow - Coin acceptor is being disabled by the controller. Machine is OOS.
- No Light ó No power to the device or a defective board. Check cable for connection and continuity.



See the section of this manual titled "Setting Up Tokens" for more information regarding the coin acceptor and for information that explains how to "train" the acceptor to identify quarters, dollar coins and tokens. You can also visit the IDX web site at www.idxinc.com for more information on programming or troubleshooting this device.

7.8 Printer Troubleshooting (not DLR model)

The optional Hengstler X-56 printer includes a Red and Green LED to indicate the status of the printer. The LED conditions will indicate normal operation as well as the "out of paper" and "printer failure" conditions.

For a paper, or cutter error, press the black plunger in to remove any debris. Pull the black plunger out to reload the paper. See the section titled "Loading Paper in the Printer" in the Quick Start Guide in the beginning of this manual for more information.

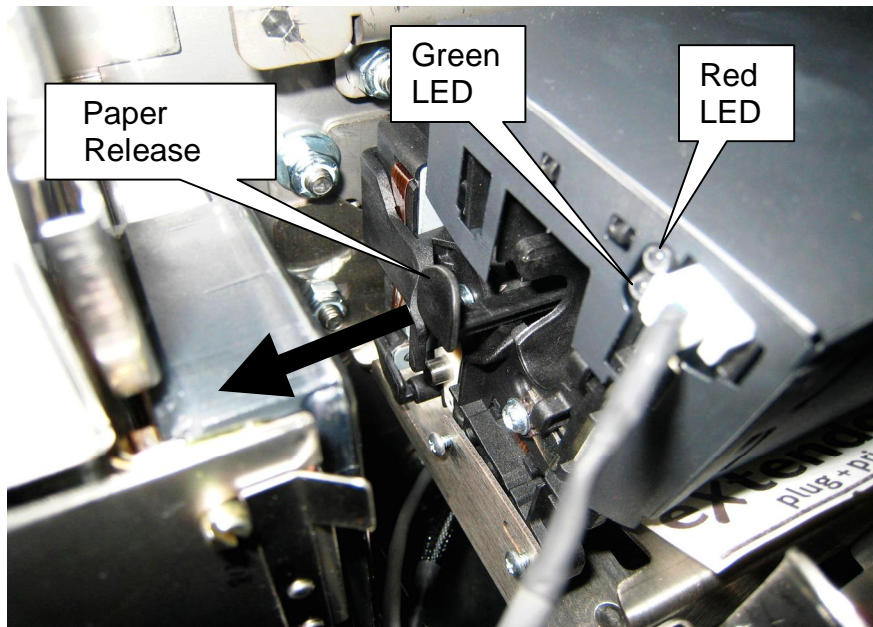
If both LEDs are off, check the printer cable at both ends for a proper connection. Note: The printer cable plugs into the connector marked with a blue colored identifier at the main control board.

If the printer is not in an error mode, but will not print receipts or reports, check the printer setting menu for proper programming.

If paper is being ejected but not printed you should check to see if the paper is loaded upside down.

7.8.1 Printer Fault Conditions

<u>Green LED</u>	<u>Red LED</u>	<u>Fault Condition</u>
Slow Blink-----1 second on, 1 second off	Off	Normal Operation
Medium Blink-1/10 second on, 1/10 second off	Off	Out of Paper
Flicker-----Very fast twinkle Error	On ó Cutter Error	Paper Error, Cutter

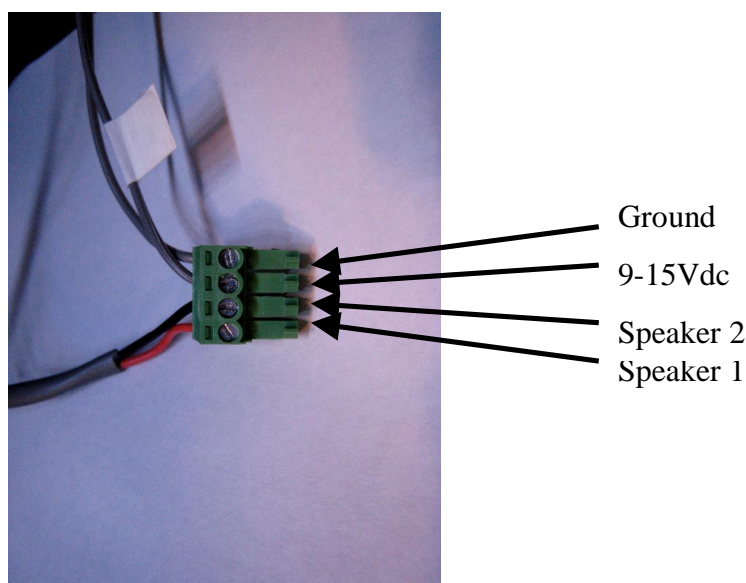


The paper release plunger should be all of the way out during normal operation.

7.9 Voice Module Troubleshooting

The optional voice module should be very maintenance free. There is nothing to clean and no moving parts. If for some reason you do not hear voices from your voice module try the following.

- Check to see if the card is seated properly. The SD card is spring loaded and will eject if you push down on it. If the card is not seated properly you will need to cycle power of the voice module to reload the voices.
- Power can be checked by unplugging the four pin terminal block connector located on the bottom of the voice module. Measure the voltage at the connector. It should be around 9 to 15Vdc.
- The speaker can also be troubleshot from here. Using an ohm meter measure the resistance across the speaker connection. It should be around 8 ohms, which is the resistance of the speaker. If this is very high then one or both speaker connections are missing.
- You should also measure resistance from each speaker connection to the cabinet. The resistance should be very high. If not then there could be a short from the speaker wire to the cabinet.



8.0 PLC

The PLC is the interface that connects the Guardian XP to the car wash equipment. This device has eight inputs and six outputs, each having an LED indicator to show the status of that port. This device also has a LEDs that display the communication status between the PLC and the main control board in the Guardian XP. A normal communication status would be when the PWR and RUN are solid green and the bars labeled CPU, TX1, and RX1(05) or TX2 and RX2 (CLICK) are flashing green.

The PLC indicator lights are very helpful in troubleshooting the system if a wash has failed to load or for other errors that can occur with the loss of communication between the Guardian XP and the Car Wash Controller. Following is a brief description of the use for each LED on PLC used in the Guardian XP application.

8.1 Direct Logic 05 PLC Indicator Lights (discontinued)

X0 =Wash Bay Inhibit, X1 = Proximity Sensor, X2 = Bay Fault, X3-X7 =Future expansion
Y0 ó Y3 =Wash Selection Outputs, Y4 =not used, Y5= Bay Busy

Port / LED

X0 = OFF Wash bay empty.
X0 = ON Wash in use.

X1 = ON Proximity sensor blocked.
X1 = OFF Proximity sensor unblocked.

X2 = ON Car Wash sending a fault which will shut down the Guardian XP.
X2 = OFF Car Wash not in fault.

Y0 = ON Wash one has been selected. On time will be set by relay on time in wash settings menu.

Y1 = ON Wash two has been selected. On time will be set by relay on time in wash settings menu.

Y2= ON Wash three has been selected. On time will be set by relay on time in wash settings menu.

Y3= ON Wash four has been selected. On time will be set by relay on time in wash settings menu.

Y5 = ON Wash bay busy or GXP waiting for end of cycle (inhibit signal).
Y5= OFF Bay empty or GXP has received end of cycle signal.



8.2 CLICK Controller Indicator Lights

X1 =Wash Bay Inhibit, X2 = Proximity Sensor, X3 = Bay Fault, X4-X8 =Future expansion
Y1 ó Y4 =Wash Selection Outputs, Y5 =not used, Y6= Bay Busy

Port / LED

X1 = OFF Wash bay empty.
X1 = ON Wash in use.

X2 = ON Proximity sensor blocked.
X2 = OFF Proximity sensor unblocked.

X3 = ON Car Wash sending a fault which will shut down the Guardian XP.
X3 = OFF Car Wash not in fault.

X4 = ON	Gate closed signal return.
X4 = OFF	Gate normal.
Y1 = ON	Wash one has been selected. On time will be set by relay on time in wash settings menu.
Y2 = ON	Wash two has been selected. On time will be set by relay on time in wash settings menu.
Y3= ON	Wash three has been selected. On time will be set by relay on time in wash settings menu.
Y4= ON	Wash four has been selected. On time will be set by relay on time in wash settings menu.
Y5 = ON	Gate Open signal. On time will be set by gate rly on
Y5= OFF	time in wash settings menu.
Y6 = ON	Wash bay busy or GXP waiting for end of cycle (inhibit signal).
Y6= OFF	Bay empty or GXP has received end of cycle signal.



9.0 FREQUENTLY ASKED QUESTIONS

An owner can typically resolve many problems after he/she has been familiarized with our machine. The following are a few examples of questions and answers you may have concerning our equipment.

What kind of car wash discounts (promotions) can I run with the Guardian XP?

The Guardian can be programmed for a time discount (early bird), or multiple coupons, tokens, or code based discounts. See the promotion section of the Guardian Owners Manual for more information.

Why is my bill acceptor rejecting so many bills?

A dirty sensor is one of the main reasons for bill rejections. For MEI acceptors, refer to the label located on the back of the bill magazine for cleaning instructions. Also, check the bill acceptor manual for error code and troubleshooting information.

Why has my coin acceptor stopped accepting coins?

- The X-10 coin acceptor is design with LED status indicators to help in troubleshooting. No LED's lit might indicate the cable has come unplugged. Flashing RED/GREEN would indicate a critical sensor malfunction. A flashing Yellow would indicate the Guardian's controller has disabled the acceptor. You can visit the IDX web site at www.idxinc.com for more information.
- If the green status LED is on, reprogram the coin acceptor following the steps in section 8.1.5. titled setting up tokens.

Why has my machine stopped approving credit card transactions?

- Contact your card processor and verify your account is in good standing.
- For high speed processing, use the configuration menu to verify the Guardian has received a valid IP address from your high-speed network. The IP address will be displayed after the IPTran information. If the IP address is all zeros, reset your high-speed modem and router.
- Clean the card reader with a magnetic stripe cleaning card or similar method.
- "Card Not Approved" means that the card processor has rejected the card.

Why is my machine displaying "Use Exact Amount or No Change Returned"?

This message indicates the coin hopper is sold out or in fault. Fill the coin hopper if empty or check for a flash code error on the coin hopper control board. Refer to the Flash Code Troubleshooting Chart in this manual for more information.

Why does my machine display "This Machine is Out of Service"?

Enter the main menu mode by pressing and holding both the test and reset buttons for at least 3 seconds, then releasing. The last error that occurred will now be displayed. Refer to the "Machine Troubleshooting Chart" section of this manual for more information.

Why doesn't the Guardian load a wash?

The Guardian uses the Click or Direct Logic 05 PLC to interface with the car wash equipment controller.

- Verify the PLC is powered up and communicating to the Guardian XP main control board by viewing the settings in the Configuration Report. You should see the software version of the PLC displayed (v. 1.0xx) when the "PLC Controller" selection is displayed.
- Refer to the installation guide to verify control wire connections from the Guardian XP PLC to the Car Wash equipment controller. Look for broken wires.
- Verify the PLC relay outputs Y0, Y1, Y2, or Y3 light when the corresponding selection is made after the correct dollar amount has been deposited.
- Verify the PLC toggle switch located next to the communication cable connector is set to RUN.
- Check the programming in the Wash Settings for the correct wash values (in dollars) for each of the four selections.

How do I dispense a different size coin or a token?

Coins and tokens may look similar but the Guardian treats them differently.

- A quarter-dollar dispenser can easily change between quarter and dollar by dumping out the old coins and refilling with the new value coin. The value setting on the dispenser board will have to

be updated by the DIP switches. Nickel and dime dispensers are not as flexible and will have to be replaced.

- If you are wanting a token dispenser please contact our parts department with the thickness and diameter of the token you wish to dispense. They will find the correct dispenser for you.

Why do I need surge protection on my ethernet connection?

More than likely your Guardian is sitting in an open area in the weather and the ethernet connection is running underground. That will subject the ethernet cable to the high voltage discharge from nearby lighting strikes. The cable eventually connects to some delicate electronics in the Guardian, which can not withstand high voltages.

10.0 MAINTENANCE & REPAIR

All modules have been packaged in a manner that will allow the easiest possible removal and require the least number of tools possible. The following tools are recommended:

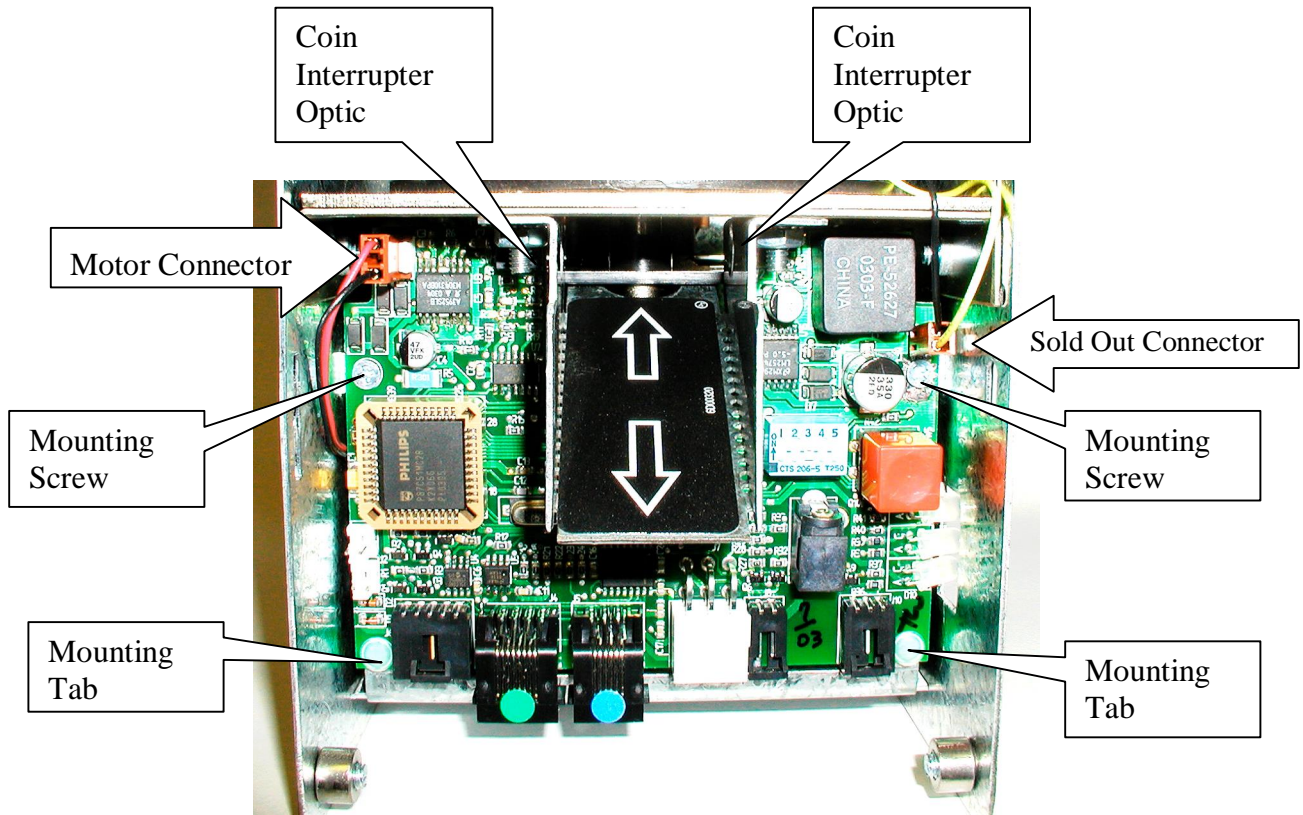
- 7/16, 3/8 and 11/32 sockets or nut drivers; used for 1/4-20, #10-32 and #8-32 nuts.
- Socket extension; used for long reach in deep cabinets.
- Flat head, #2 Phillips and #0 Phillips screw drivers; used for removing module covers.
- Needle nose pliers and wire cutters; used for removing small parts and cable ties.

10.1 Coin/Token Dispenser Preventative Maintenance (not DLR model)

Preventative Maintenance Steps:

- Dump hopper once every six months and remove bent coins or tokens.
- Use canned air to remove dust and debris from hopper shell and dispenser area.
- Use a clean Q-tip and wipe off the coin interrupters located on either side of the coin chute openings.
- Inspect the coin funnel for cracks or gaps where coins could wedge, creating coin jams.
- Check that all cable connections are secure.
- Check that the yellow status light is flashing steady and not displaying a 0flash code0.
- Press the hopper reset button to reset any errors that may have occurred while servicing the dispenser.

10.2 Coin/Token Dispenser Repair (not DLR model)



Important:

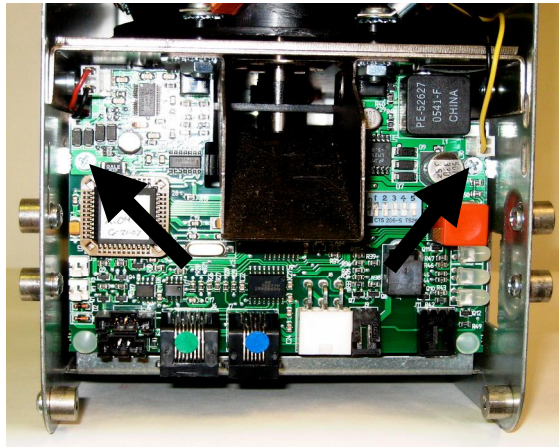
If the entire coin dispenser is replaced AND it is being replaced by one that was not the same value, it will be necessary to check the Wash Settings in the Main Menu mode. The machine will detect the new value and require that you check the settings before the machine can be placed into service. This is a safety measure to ensure you have had a chance to double check your Wash Vend settings.

- Always check the value of the coin dispenser to ensure it is the correct value for the coin you are loading it with. For more information see the section of this manual that pertains to setting the coin dispenser (hopper) value.
- Be careful to avoid pinching the motor connection wires (see picture above) between the coin dispenser control board and the coin dispenser frame.

To remove the coin dispenser with power off, disconnect all cables connections. If the dispenser will not be replaced immediately and the dispenser is the one on the left side of the cabinet it will be necessary to move the remaining dispenser (if present) into the left dispenser position. This is necessary because the left dispenser is the one the bill acceptor is plugged into.

10.2.1 Coin/Token Dispenser Control Board Replacement

The coin dispenser control board can be easily replaced. First, turn the power off to the machine. Next unplug the cables connected to the dispenser control board. Next remove the two screws in the upper two corners of the board as shown in the photo below. Finally, use a small straight edged screwdriver to pop the board loose from the two plastic push pins in the lower two corners of the board.



10.2.2 Coin Dispenser Sold-Out Configurations

Factory default settings: \$20 sold-out level

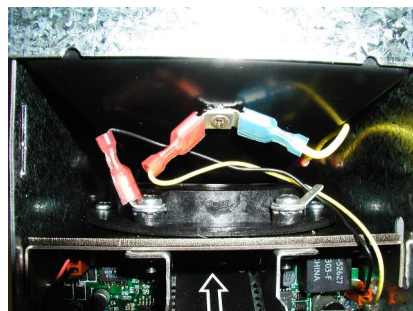
The sold-out level (level of coins remaining in the coin dispenser) for the dispenser should be set to prevent a short pay condition that can occur when the coin reserve is near empty and a patron inserts a large denomination bill. In other words, you will want to leave enough coins in the dispenser to ensure that the last person to use the machine before it shuts off due to an empty condition, receives all of their change. Therefore the sold-out level setting should match or exceed the value of the largest bill denomination to be accepted, typically a \$20 bill.

To determine how to set the optimum sold out level see the pictures below. To access the sold-out level settings, simply open the dispenser door. You may need to remove the shipping screw prior to opening the door.

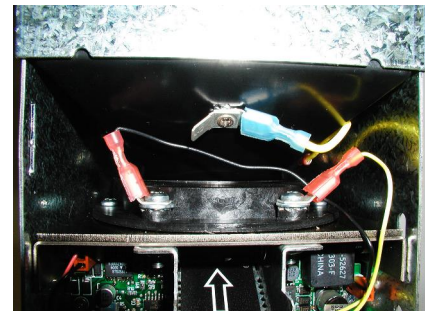
\$20 Sold-Out Level Setting



\$5 Sold-Out Level Setting



Sold-Out "Bypassed"



Note: If the dispenser becomes empty in this configuration, a dispenser error will occur. The Reset Button on the dispenser must be pressed to clear the error after refilling the dispenser

11.0 BILL ACCEPTORS (NOT BE OR DLR MODELS)

11.1 Bill Acceptor Preventative Maintenance

- Use canned air regularly to remove dust and debris from bill path.
- Use clean damp rag to wipe off optic sensors on the upper and lower track
- Review OEM manufacturer's information for additional tips.

11.2 Bill Acceptor Replacement

- With power off, remove the 4 mounting nuts that hold the bill acceptor mounting plate.
- Remove the bill acceptor mounting plate (4 screws) from the defective bill acceptor.
- Install the mounting plate onto the replacement bill acceptor.
- Install the bill acceptor / mounting plate in the machine using the 4 nuts.

11.3 MDB Bill Acceptors

The following is a list of MDB Bill Acceptors that will work in the GXP Series:

Changing bill acceptor models may require a different bill acceptor mounting bracket.

BRAND	MFG'S. PT. NO.	SCM PT. NO.	DESCRIPTION
Coinco	Vantage Series	5V00352	Coinco, Vantage, USA, \$100, 700
CashCode	Currenza Series	5V00351	CashCode, Currenza, CA \$100, 500
MEI	AE2602 Series	5V00219	MEI, AE2602, USA, \$20, 500
MEI	AE2812 Series	5V00221-M	MEI, AE 2812, USA, \$100, 500

See the bill acceptor manual for more information regarding Multi-drop Bus operation and configuration.

12.0 PART ORDERING INFORMATION

To obtain service on a component or module, please follow these instructions.

1. Locate the fault to a specific component or module. See the troubleshooting section of this manual for assistance.
2. Call the service department at Standard Change-Makers. You will need to give the service representative the following.

MODEL NUMBER OF YOUR MACHINE
SERIAL NUMBER OF YOUR MACHINE

3. If you cannot furnish these numbers it will be extremely difficult for the service department to help you. The serial number and model number are located on a label inside your machine. Service center phone numbers are given on the last page of this manual.
4. Always remove power from your machine prior to removal of a component.
5. Remove the faulty component from the changer cabinet.
6. If the component is to be returned to the factory or service center, pack the component in the original factory packaging if possible. If the original packaging is not available, use a suitable substitute. Care should be taken to prevent damage to the components from electrostatic discharge and mechanical shipping damage.

<p>NOTE: Please avoid the use of Styrofoam or peanuts when packing. If peanuts are used, the component should be encased in a plastic bag to prevent clogging the mechanism.</p>

12.1 Parts List

Guardian XP Replacement Parts List		
Part Number	Description	
1E00144	BUZZER, CONTINUOUS	
4K00884-FI	PROXIMITY SENSOR KIT, PHOTOELECTRIC	
4E00353	TERMINAL BLOCK, PROXIMITY SENSOR	
4E00352	TERMINAL BLOCK, MAIN INTERFACE	
1K00115	RELAY, 24VDC	
1K00116	RELAY, 24VAC	
1K00117	RELAY, 110VAC	
1S00105	SWITCH, POWER SUPPLY, LIGHTED	
1S00219	SWITCH, INHIBIT, TOGGLE	
1S00202	SWITCH, DOOR, PUSH BUTTON	
4E00356	SWITCH, SELECTION, METAL LIGHTED	
4E00357	SWITCH, CANCEL, METAL LIGHTED	
3M00178	A.C. RECEPTACLE, DUAL OUTLET	
5M00107	SURGE ARRESTOR	
1E00146	RFI FILTER UNIT	
5P00239	POWER SUPPLY UNIT, MAIN	
1S00217	KEYPAD, EXTERNAL MOUNT	
4A00292	PROGRAMMABLE LOGIC CONTROL UNIT	
4E00345	EF2 CPU MODULE BOARD ASSY	
4E00346	EF2 CPU MODULE BOARD ASSY, w/ETHERNET	
2F03040	COVER, EF2 CPU MODULE BOARD	
2F02988	COVER, PLC JUNCTION BOX	
2F02978	COVER, POWER BOX	
2F03411	COVER, INTERNAL WIRING HARNESS, DOOR	
2F03385	COVER, SELECTION SWITCHES, INTERNAL	
6D00685	WASH SELECTION PLACARD, CUSTOM	
2F03043	WASH SELECTION PLACARD COVER FRAME	
2F03282	WASH SELECTION PLACARD BACK PLATE	
5L00107-2	LOCK PLUG SET, MEDECO, 2 LOCKS, 2 KEYS	
3M00113	LOCK CYLINDER for MEDECO LOCK PLUG	
3B00116	LOCK BOLT, 1/2-13 x 2 1/4" AHCS	
2Y00102	LOCK BOLT ASSY. SPRING	
3W00103	LOCK BOLT ASSY. WASHER	
3N00104	LOCK BOLT ASSY. NUT	
2W00100	LOCK BOLT WRENCH	
4A00291	VOICE MODULE, GXP	
5P00119	VOICE MODULE POWER SUPPLY, GXP	
4A00299	COIN ACCEPTOR, IDX w/HOUSING	
2F03001	COIN SLOT ESCUTCHEON PLATE	
4M00848	COIN BOX	
4M00901	COIN CUP ASSEMBLY	
4M00840	COIN CUP CHUTE ASSEMBLY	
4A00303	C.C. READER, 2 HEAD, FLUSH MNT	
3M00380	C.C. READER, METAL BEZEL ONLY	
2F03037	C.C. READER WEATHERSHIELD	

2F03436	C.C. READER INTERNAL COVER
2F02984	C.C. INSTRUCTION MOUNTING PLATE
5M00231	C.C. MODULE, IPTRAN for MERCURY PAYMENT
5M00232	C.C. MODULE, IPTRAN for STERLING PAYMENT
5M00229	C.C. MODULE, IPTRAN for ALL OTHERS (NO MERCURY & STERLING)
5M00228	C.C. MODULE, DATATRAN for DIAL-UP
5P00241	C.C. POWER SUPPLY UNIT
3M00388	C.C. READER CLEANING CARD
5M00238	PRINTER, HECON
4M00949	PRINTER MOUNT ASSEMBLY, HECON
8M00573	THERMAL PAPER ROLL (2 1/4" x 400')
3M00407	WIRE HARNESS PROTECTIVE SLEEVE, .625 ID x 21"
4C00391	CABLE, EF2 CPU TO HECON PRINTER
4C00263	CABLE, MDB NOTE ACCEPTOR
4C00360	CABLE, EF2 CPU TO BUZZER
4C00355	CABLE, EF2 CPU TO KEYPAD
4C00356	CABLE, EF2 CPU TO VOICE MODUE
4C00366	CABLE, EF2 CPU TO SELCTION BUTTONS
4C00377	CABLE, EF2 CPU TO IDX COIN ACCEPTOR
4C00384	CABLE, POWER BUS, 10" HOPPER TO HOPPER
4C00385	CABLE, CONTROL BUS, 10" HOPPER TO HOPPER
4C00386	CABLE, EF2 CPU TO HOPPER
4C00388	CABLE, EF2 CPU TO C.C. READER
4E00351	USER DISPLAY MODULE, 2X20 CHARACTERS
6L00132	USER DISPLAY WINDOW, GXP
4E00347	SPEAKER ASSEMBLY
4M00947	HEATER CONTROL ASSEMBLY
4M00946	HEATER ELEMENT ASSEMBLY
5A00216	AUTO-DIALER MODULE
5M00251	AUTO-DIALER CABLE
4E00322	HOPPER P.C. BOARD ASSEMBLY
4M00865	HOPPER DISPENSER PLATFORM
5H00276	HOPPER DISPENSER, DOLLAR/QUARTER
5H00281	HOPPER DISPENSER, CDN QUARTER
5H00277	HOPPER DISPENSER, DIME
5H00283	HOPPER DISPENSER, NICKEL
5H00XXX	HOPPER DISPENSER, TOKEN (Specify token size when ordering)
6D00684	LEXAN DECAL, MACHINE FRONT
4K00925-FI	BILL ACCEPTOR MOUNT, MARS AE2602
4K00927-FI	BILL ACCEPTOR MOUNT, MARS AE2812
3M00408	BILL ACCEPTOR WEATHER GASKET, MARS AE2602
3M00409	BILL ACCEPTOR WEATHER GASKET, MARS AE2812
5V00219	BILL ACCEPTOR, MARS AE2602, USA, \$1-\$20
5V00221	BILL ACCEPTOR, MARS AE2812, USA, \$1-\$100
5V00352	BILL ACCEPTOR, COINCO VANTAGE, USA \$1-100
5V00351	BILL ACCEPTOR, CASHCODE, CURRENZA, CAN, \$5-20
5S00107	BILL STACKER, MARS, AE2602, 1000 CAPACITY
5S00354	BILL STACKER, MARS, AE2602, 700 CAPACITY
4K00815-FI	INSTALLATION RETROFIT FRAME, ACW 3-4-5
4K00929-FI	INSTALLATION RETROFIT FRAME, ACW 2
4K00909-FI	INSTALLATION RETROFIT FRAME, D&S CABINET

STAINLESS STEEL HOOD ASSEMBLIES		
2F03416		FRONT PANEL, FOR DECAL APPLIED HOOD
6D00700		LEXAN DECAL, "PAY HERE"
5L00135		LOCK, FRONT PANEL, ALL HOOD ASSEMBLIES
2F03412		FRONT PANEL, FOR BACK LIGHTED & SCROLLING HOOD
6L00142		LENS, "PAY HERE", BACK LIGHTED HOOD
4E00358		LED LIGHT MODULE, BACK LIGHTED HOOD
5P00240		POWER SUPPLY UNIT, BACK LIT HOOD, 12 VDC
2P00192		LENS, CLEAR, SCROLLING SIGN HOOD
2P00191		LENS, RED, SCROLLING SIGN HOOD
4A00301		SCROLLING LED DISPLAY UNIT ASSEMBLY
1T00105		TRANSFORMER, SCROLLING DISPLAY
4C00375		CABLE, CPU TO SCROLLING DISPLAY
4C00395		CABLE, TRANSFORMER FOR SCROLLING DISPLAY

Appendix A. Custom Entry Template

The user display in the Guardian XP is an alpha/numeric 2 line, 20 character per line display. The template below can be used by the machine owner to map out the possible messages you would like to display. Custom displays can be used for the welcome prompt, up sell prompt, exit prompt, off line prompt, out of service prompt, as well as custom wash names. Below is an example of a custom welcome prompt ðWELCOME TO BIG J CAR WASH.

WELCOME NAME TEMPLATE

Welcome Message 1 Example

W1T						W	E	L	C	O	M	E		T	O				
W1B				B	I	G		J		C	A	R		W	A	S	H		

Welcome Message 1 Top and Bottom

W1T

W1B

Welcome Message 2 Top and Bottom

W2T

W2B

Welcome Message 3 Top and Bottom

W3T

W3B

Welcome Message 4 Top and Bottom

W4T

W4B

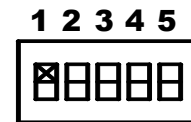
Appendix B. Setting Dispenser Type

(The Factory Default Setting for Dispenser Type is "COIN").

To make a change to the Dispenser Type feature, follow the step by step procedure outlined below.

Note: The five-position switch and red selection button are located on the dispenser control board. For machines with multiple dispensers, these settings must be set on each dispenser control board for the feature to be activated.

IMPORTANT: Please note the original switch settings before starting this procedure. You will need to return the switches to this original setting to assure proper operation after making any changes. As a convenience, you can enter these original settings in the diagram to the right by simply marking an ☐ for UP (ON) or DOWN (OFF) on each switch.



1. Activate the Dispenser Type programming mode by setting:
Switch 1 ☐ ON; Switch 2 ☐ OFF; Switch 3 ☐ OFF; Switch 4 ☐ ON; Switch 5 ☐ ON
2. Press the red selection button one time.
3. Advance to the Dispenser Type selection step by setting;
Switch 1 ☐ ON; Switch 2 ☐ OFF; Switch 3 ☐ OFF; Switch 4 ☐ OFF; Switch 5 ☐ OFF
4. Press the red selection button ten times.
5. Now set switches to desired setting Choice numbers 1 through 5 as per the chart below. Once you've made your selection, press the red selection button one time.
Example: Set switches to match Choice 2 if you want the Dispenser Type set to ☐ TOKEN.
6. End the programming sequence by resetting the switch to their original settings, and then press the red selection button one time to put the machine back into service.

PARAMETER TABLE 6 **DISPENSER TYPE**

CHOICE	SETTING	SWITCH POSITIONS			
		SW2	SW3	SW4	SW5
1	COIN	OFF	OFF	OFF	ON
2	TOKEN	OFF	OFF	ON	OFF
3	BILL	OFF	OFF	ON	ON
4	CARD	OFF	ON	OFF	OFF
5	TICKET	OFF	ON	OFF	ON

Appendix C. Custom Dispenser Value

(The Factory Default Setting for Dispenser Value is "\$00.00").

To make a change to the Dispenser Value, follow the step by step procedure outlined below.

Note: The five-position switch and red selection button are located on the dispenser control board. For machines with multiple dispensers, these settings must be set on each dispenser control board for the feature to be activated.

1. Activate the Dispenser Value programming mode by setting:
Switch 1-ON; Switch 2-OFF; Switch 3-ON; Switch 4-OFF; Switch 5-ON
2. Press the red selection button one time. This advances you to the õTensö digit of the dollar amount.
3. Now set switches to desired setting from the Choice numbers 1 through 10 below.
4. Press the red selection button one time. This advances you to the õOnesö digit of the dollar amount.
5. Now set switches to desired setting from the Choice numbers 1 through 10 below.
6. Press the red selection button one time. This advances you to the õTensö digit of the cents amount.
7. Now set switches to desired setting from the Choice numbers 1 through 10 below.
8. Press the red selection button one time. This advances you to the õOnesö digit of the cents amount.
(õOnesö digit can only be set to either 0 or 5.)
9. Now set switches to desired setting from the Choice numbers 1 through 10 below.

Multi-Denomination Bill Dispensers – repeat steps 2 through 9 for each additional cassette even if the cassette has the same denomination bill as another. The first cassette programmed will be the top one, the second is the next one down (if looking at the dispenser) and so on. When the last cassette is programmed proceed to the next step. If your machine was purchased without the optional EF Module, you must use the “Forced Dispense Feature” (page J) to set the bill dispensed settings or the Make Best Change feature will determine the bills dispensed automatically.

Example – In a BX machine, it would be necessary to set a force dispense to five (5) if you want (5) one dollar bills dispensed for (1) five dollar bill accepted. The force dispense amount will be dispensed from the top cassette.

10. Press the red selection button one time.
11. End the programming sequence by resetting the switches to the OFF (down) position, and then press the red selection button one time to put the machine back into service.

DISPENSER VALUE CHOICES					
CHOICE	SETTING	SWITCH POSITIONS			
		SW2	SW3	SW4	SW5
1	1	DOWN	DOWN	DOWN	UP
2	2	DOWN	DOWN	UP	DOWN
3	3	DOWN	DOWN	UP	UP
4	4	DOWN	UP	DOWN	DOWN
5	5	DOWN	UP	DOWN	UP
6	6	DOWN	UP	UP	DOWN
7	7	DOWN	UP	UP	UP
8	8	UP	DOWN	DOWN	DOWN
9	9	UP	DOWN	DOWN	UP
10	0	UP	DOWN	UP	DOWN

Appendix D. Restrictions On Port Usage

When using the Xport ethernet device and setting a port it is advised not to use ports 1 through 1024, 9999, 14000 through 14009, 30704 and 30718. These ports are commonly used other functions.

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SERVICE CENTER**

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Record these numbers here for use when ordering parts.

Serial # _____

Model # _____