



Hydro-Spray Car Wash Equipment

Modicon/Citect Integrated Control System

OPERATING MANUAL

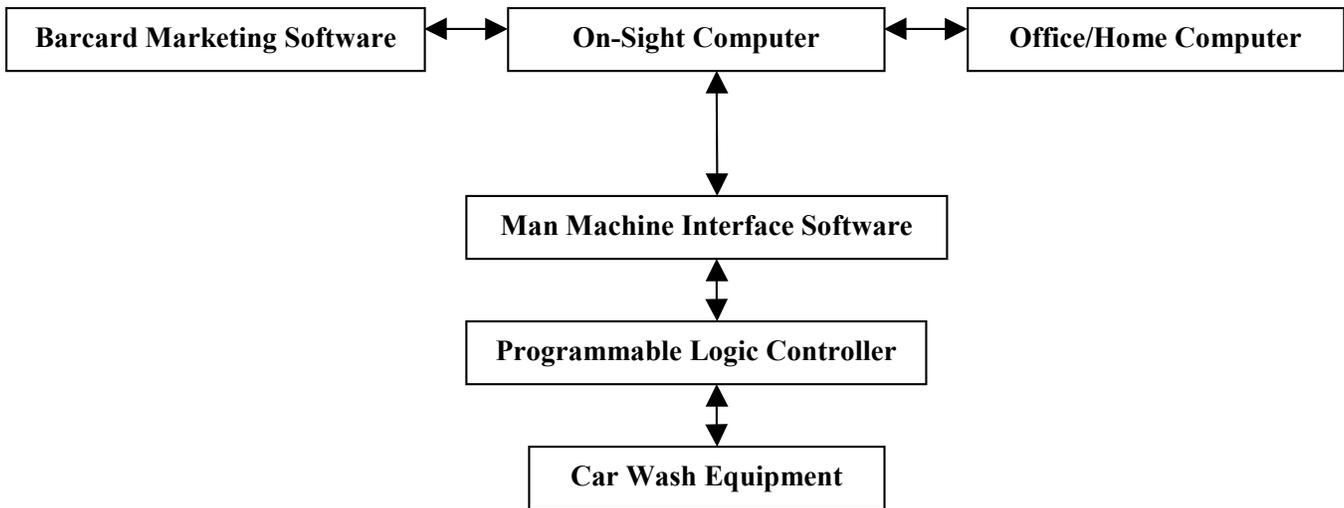
Version 5.1 Compatible

Introduction

Your Hydro-Spray Car Wash System optionally, comes with the most advanced control system on the market. It allows you to maintain complete control over the various self-service and automatic wash functions, which may need to be changed from time to time. This can be done from the computer terminal at the car wash location or from the convenience of your home or office using our unique “two-way” control technology.

In addition to being able to manage control functions, you are also able to monitor how your car wash performs by directly looking at the registers where actual “real-time” data such as seconds remaining or coins inserted are stored. You can also see this crucial data displayed on standard Excel or Lotus 123 spreadsheets.

In this manual, we will show you how to get the most from your operating system. It is made up of several basic components. Each component works with the others to give you unparalleled control over your wash.



In this manual, we will cover each of these components. Some components, such as the on-sight computer, office/home computers, and car wash equipment will receive only basic instructions. More complete instructions can be found in the accompanying manuals for these items. Our treatment of the accompanying, commercial software will be basic as well. Once again, we have included the necessary manuals so that you can become as proficient in their use as your time, requirements and inclination dictate.

These instructions on our proprietary applications are designed to enable you to operate your car wash system, restart it should this be required as well as allow you to troubleshoot if that becomes necessary.

NOTE: This Manual contains instructions for the complete operating system and options. The system you purchased may not include some of the options listed herein.

Section I – Basic Computer Operations

Basic Computer Operations – Windows 98, ME , 2000 or XP Systems, The Basics

Windows 98, ME, 2000 & XP are robust computer operating systems, which we have chosen as standard upon which to build our car wash control system. We have done this because of the features these systems afford us as well as their nearly universal acceptance and use in the business and industrial control arenas. We are certain that they will suit our needs for many years to come and keep us abreast of many new developments in the computer environment.

We have also chosen the Windows platform because it contains powerful features that allow us to maximize the integration concept that is at the very heart of our control.

With these ideas in mind, it becomes imperative that all those who will be required to use our exclusive car wash control system, become familiar with the basic features of Windows. In the pages that follow, we will present the correct procedures for using your Windows computer to interface with our control system. To prepare you for that task, we request that you first read and familiarize yourself with the Windows manual that is included with your computer.

There may be some functions of your computer that have been locked or disabled. We have intended your onsite computer to be used for Hydro-Spray control and marketing functions only. **DO NOT LOAD OTHER SOFTWARE WITHOUT CONSULTING HYDRO-SPRAY OR MAKE CHANGES TO THE SETUP FUNCTIONS.** Doing so may cause serious problems with our proprietary software operation.

We have removed some material covering third party software usage presented in previous editions. You must familiarize yourself with proper operation of these systems by reading the appropriate manuals or using the on-line help provided. We have done this because the constant revision and upgrading of these software and operating systems require a thorough understanding of their operation. This can only be gained by studying their material.

Windows XP requires that you register within 30 Days. With our setup time and shipping, you may have less time. Be sure to register as soon as you get the unit.

Basic Computer Operations – Windows Operating Systems, Getting Started

If you are familiar with Windows 95 or Windows 98, you probably have enough knowledge to successfully operate your Control System PC, a Windows ME , 2000 or XP platform. Like their more familiar 95 and 98 counterparts, Windows ME, 2000 or XP provide you with a very user-friendly operating system. Once you get the hang of a few basic operations, you will be able to navigate around the system with ease.

This is one important reason we chose a Microsoft platform. Some competitors have based their systems on their own proprietary platforms that may or may not require you to learn a whole new set of operating commands.

We will cover only the bare-bones essentials in this Manual. Complete information is available to you in the accompanying “Windows ME, 2000 or XP” manuals or by using the excellent on-line help system.

1. Turning ON your computer.

The computer and computer screen are usually controlled by two different switches. They are generally located on the front panel of each device and are clearly marked. BOTH must be on for you to use our system.

Once you have turned your computer on, it will automatically “boot” the necessary programs. We have placed them in the “Start-up” file so that this will occur without assistance. (Note: If you shut-down a program by using the “EXIT” command under the file menu or by clicking on the close X icon located in the upper, right corner of the screen, it will not re-start automatically. You will have to re-start it yourself. See “Starting a Program for instructions.)

There are several programs that must run at all times in order for your system to operate correctly. These are:

1. Barcard (Optional)
2. Citect Runtime
3. pcAnywhere Waiting

Make sure that these programs are running. If they are, your “Taskbar” will display their appropriate icons.

Basic Computer Operations – Windows Systems, Point, Click and Drag

The three most basic operations on your computer are *point, click and drag*. Pointing is simply accomplished by moving the cursor by means of the “mouse” that came with your machine. It will usually have two buttons, one on the left side and one on the right. Both are used in the clicking process. The left button (left click) is used most often. With it you perform the majority of computer operations required in our control system. Double Clicking is accomplished by pressing the buttons twice in rapid succession. Dragging is used to move items on the Desktop. Placing the cursor over the item to be moved, holding the left mouse button down and dragging the object to the place on the desktop where you wish it to be does it.

Basic Computer Operations – Windows Systems, pcAnywhere

Part of the tremendous power of the H-S Operating System is its ability to be accessed remotely via computer modem. This requires a communication software package. This software is pcAnywhere, an off-the-shelf software package that is bundled with your computer.

We have configured your system to have pcAnywhere automatically start in the “waiting” mode each time your computer system is restarted. This condition is required for any remote operation being initiated from a computer not at the car wash.

Remote Access — Using pcAnywhere

To be able to access our car wash computer system remotely, you must 1.) have a IBM compatible computer, 2.) have pcAnywhere installed on this computer and 3.) Have pcAnywhere properly configured as a remote terminal.

When you are a remote PC user, you operate the host PC as if you were sitting in front of it.

We have set certain features in the pcAnywhere system. Do not alter these settings and be certain that changes or additions you establish for your own operation do not interfere with these settings.

For complete information on the use of pcAnywhere, please refer to the included manual or on-line help feature of the software.

Section II – Car Wash Operating System – Getting Started

Initial Settings

When you first receive your new Hydro-Spray Car Wash System, the initial settings should be completed by the install crew. If that is your responsibility, it will be necessary to go through the initial setup process before your system will operate properly. Following the sequence listed below will insure that the system operating parameters will be correct and the system will go through startup testing properly.

Follow the operating instructions on the following pages. They should answer most (if not all) of your questions. If you encounter problems not addressed herein, call your Distributor. They will instruct you as to the proper person to give you technical support.

- 1.) Make certain all proper safety checks and start up procedures are complete.**
- 2.) Make sure power and water are on, tanks are full and system ready to operate.**
- 3.) Power up wash system and be sure that PLC system is up and its network working.**
- 4.) Power up PC and launch MMI Application.**
- 5.) Go to the Auto_1 Screen and follow instructions on page 12.**
- 6.) Go to the Auto_1_2 Screen and follow instructions on page 13.**
- 7.) If you have two automatics, repeat this procedure using Screen Auto_2 & Auto_2_2.**
- 8.) Set up your self-service bays using the S.S._Setup screen and instruction on page 16.**
- 9.) If you have more than 6 bays, follow this same procedure using the CPU2_SS_ screen.**
- 10.) Set general operating parameters using the General Screen and instructions on p. 20.**

You are now ready to test the system! Good luck and make lots of money.

Section II – Car Wash Operating System – General Screens

Basic System Operations – Theory of Operation

As we stated in the introduction, the very heart of your H-S Control System is the Programmable Logic Controller. This high quality piece of equipment is a tried and tested method of controlling equipment. In the many years we have been producing our control systems, we have never had a car wash down due to PLC failure!

In order to provide a user friendly PLC system, there must be a user interface which allows you, the operator, to make adjustments and retrieve the usage data stored in the unit. This is accomplished via man machine interface software or MMI. We have furnished you with a high grade MMI package, capable of performing the various control features needed in a truly integrated, two way car wash operating system. The MMI also provides the link between the fabulous Bar-card marketing system and your car wash equipment.

Starting Citect * – Start Citect by clicking: “Start” - “Programs” – “Citect” – “Runtime”

Basic System Operations – The Citect Menu Screen

* - In most cases Citect will start automatically each time you restart the PC.

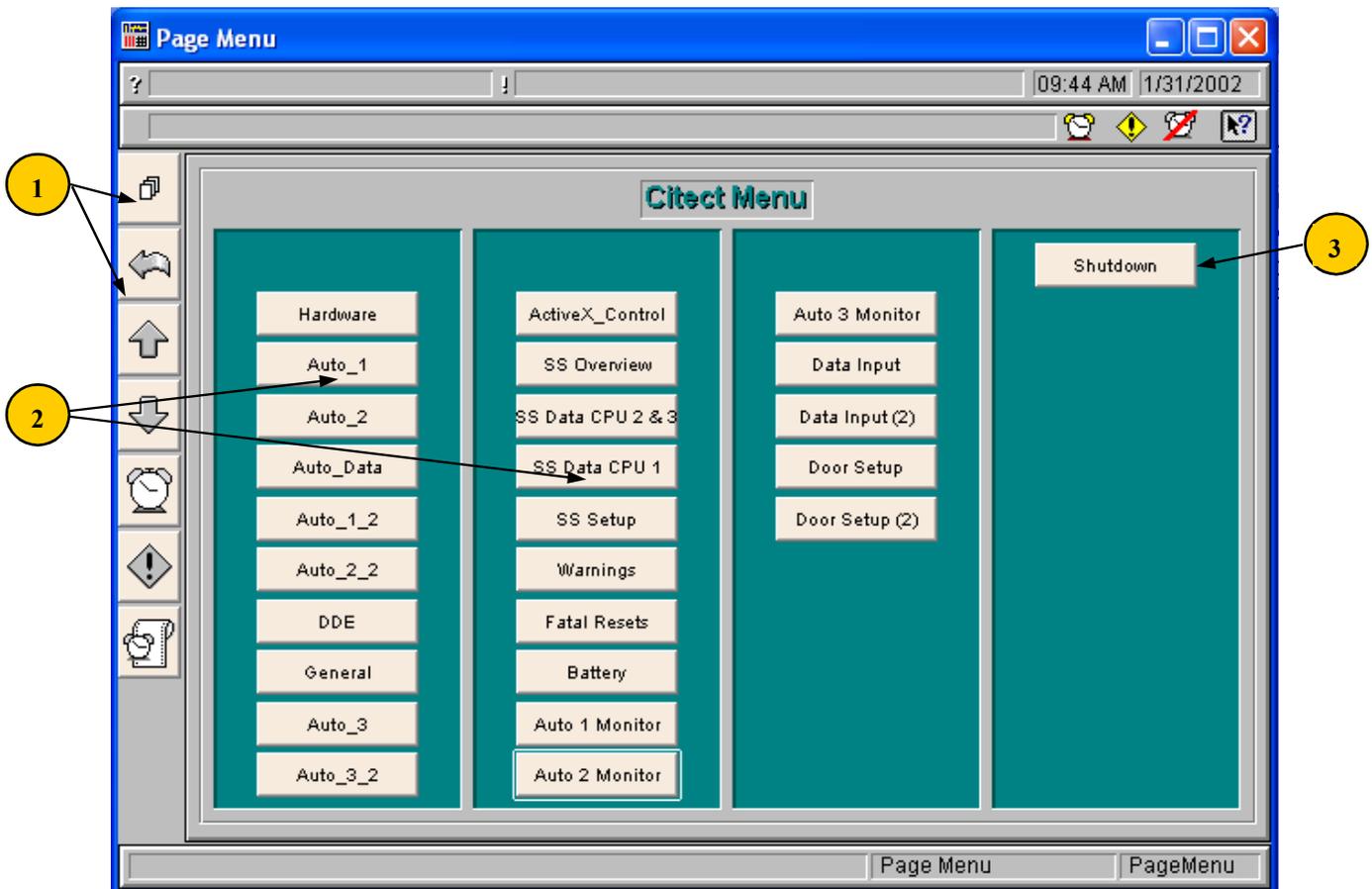


Figure 01

Basic System Operations – The Citect Menu Screen

This menu page will be the first item that appears when you start Citect Runtime. From here you can go to the various control pages.

1.) **Page Control Buttons** – These buttons appear on all pages and provide the movement between pages. They also provide access to special functions pages. The  is the primary control to use between pages along with the specific page buttons listed below.

2.) **Specific Page Access Buttons** – These buttons take you to the specific page listed. Listed below is a brief description of the control pages included in the control system.

a.) **Hardware** – This page is a special page used by the Citect® Operating System. There are no user, control features on this page.

b.) **SS Overview** – This is the primary page in the system. It gives you the “overview” of the self-serve part of the car wash as well as Temperature Monitors, CPU Battery condition and User Login and Logout access.

c.) **SS Setup** – You use this screen to set the operating parameters of your self-service functions such as number of coins to start and time per coin. It sets these parameters for bays 1-6 and vacuums only. (see item “k” below)

d.) **Auto_1 & Auto_2** – These screens allows you to set the parameters of your automatic washes.

e.) **Auto Data** – This screen displays the basic operating data for your automatics.

f.) **SS Data** – This screen displays the basic data for bays 1-6 and vacuums.

g.) **Auto_1_2 & Auto_2_2** – These screen provide access to additional automatic, operating parameters.

h.) **Auto 1 Monitor & Auto 2 Monitor** – These screens allow you to monitor, run and test your automatic washes.

i.) **DDE** – This screen is for trouble shooting only. Do NOT enter numbers here.

j.) **CPU2 & 3 Data** – This screen displays basic data for bays 7-12.

k.) **Shutdown** – This screen allows you to exit the Citect® application.

l.) **Active X**— Factory screen. **DO NOT USE THIS BUTTON.**

m.) **Data Input and Data Input (2)** - These screen allow data correction and fresh input. They are reserved for the owner only.

n.) **Battery, Warnings & Fatal Resets**—These screens provide you with critical operating information.

3.) **Shutdown Button** – See “k” above.

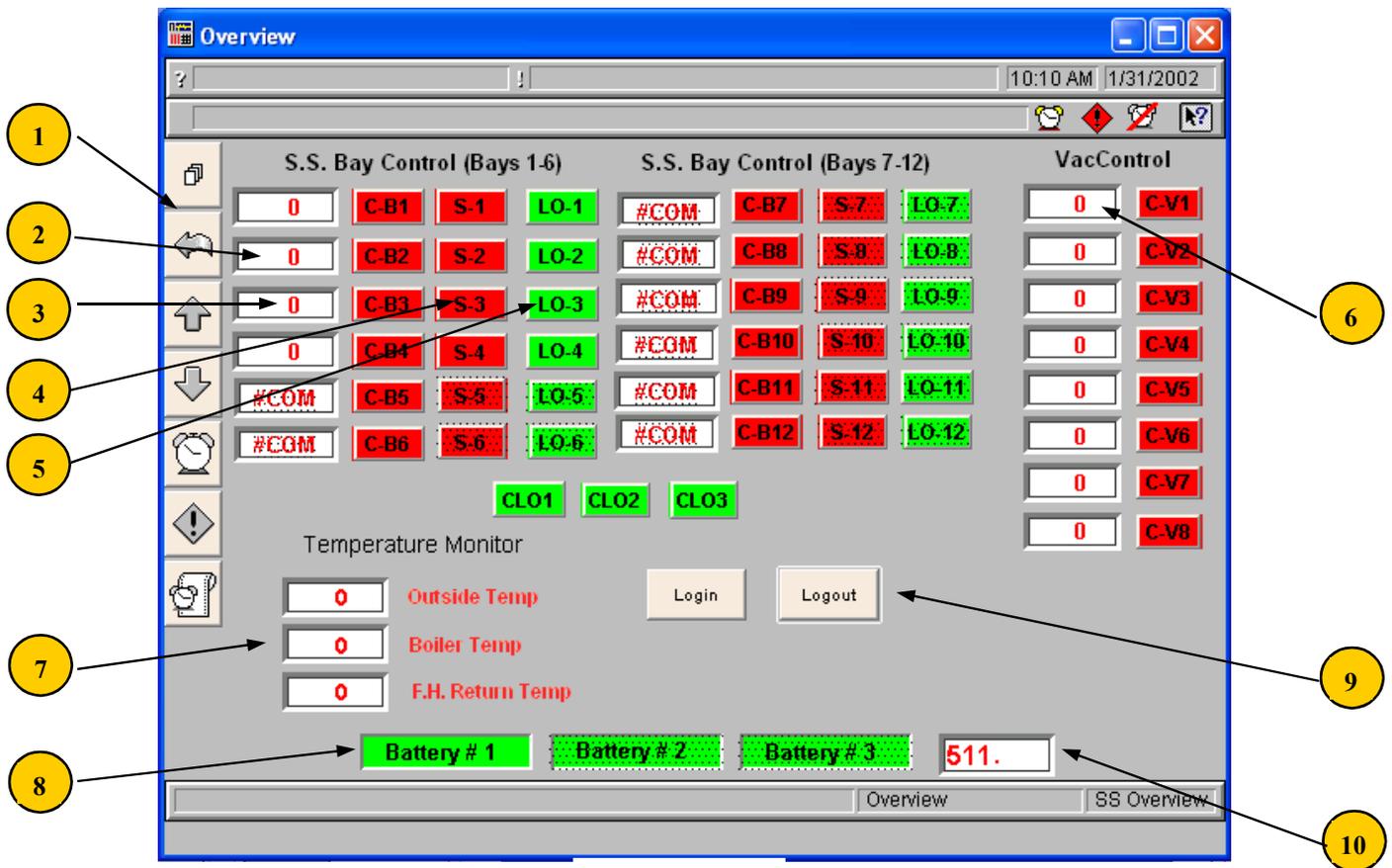


Figure 02

The *SS Overview Screen* allows you to see a general set of car wash conditions at a glance. This screen shows you what your car wash is doing at a given moment. Listed below are the items you may monitor and change from this screen.

- 1.) **Screen Access Buttons** – These buttons allow you to move from screen to screen. The ⇐ takes you back to the previous screen. This is the primary control button. It should take you to the Menu Screen.
- 2.) **Pump Pressure Condition** – This indicator lights is the background of the “seconds remaining” window and shows you the self-service pump pressure condition at a glance. Flashing red indicates that the pump failed to reach acceptable pressures in the time allotted or that you have locked that bay out of service if you have the optional pressure sensors installed.
- 3.) **Bay Timing** – The Bay Timing Section shows the time remaining on each bay, in seconds. Located next to the time indicator, is a button that will “zero” the time in that bay. When timed output is on, the number turns green.
- 4.) **Manual Bay Start** – These buttons allow you to turn a bay on manually. They are equipped with security protection in that they are enabled on the Self-Service Setup Screen.

- 5.) **Manual Bay Lockout** – These buttons allow you to lock out a bay manually. This action removes power from the coin acceptor which prevents customers from inserting money. It also displays “This Bay Out of Service” on the bay display sign.
- 6.) **Vacuum Timing** – The Vacuum Timing Section shows the time remaining on each vacuum, in seconds. Located next to the time indicator, is a button that will “zero” the time on that vacuum.
- 7.) **Temperature Monitor** – The Temperature Monitor shows the Outside Temperature, Water Storage Tank Temperature and the return temperature of the floor heat boiler fluid. These temperatures are shown in degrees Fahrenheit.
- 8.) **CPU Battery Condition** – These indicator lights show you the operating condition of the CPU memory battery condition. Replace the two AAA cells when this light turns red. Be sure you leave the CPU power on.
- 9.) **Login/Logout** – These buttons allow you to login and logout of pages for which you have the proper security. If you click on a page on the Menu Screen and that page does not appear, you will need to login and enter your password.
- 10.) **Program Version** – The current program version in the CPU.

Basic System Operations – The Auto Monitor Screen

The Auto Monitor Screen allows you to fully operate the automatic car wash. You will also find it very useful in troubleshooting and maintenance situations, as well as being able to offer customer service activities via your modem and remote computer. Refer to Figure 03 on the following page.

- 1.) **Cycle Indicators** – These indicator lights tell you which cycle the automatic is in when it is running. They are green when the cycle they represent is active in the wash program. Because of hardware design, they may stay lighted if you cancel a wash before its completion.
- 2.) **Wash Action Simulator Buttons** – These buttons simulate the action of all necessary real world wash inputs. They allow you to load any of the four wash selections, simulate the actions of the three main wash control switches (wheel wash switch, treadle switch and lap counter) and test the operation of various components.
- 3.) **Action Control Buttons** – These allow you to operate and test the functions listed. Operating these buttons produce immediate actions, so use with care. Use extreme caution when operating these buttons remote. Be sure that the bay is clear and that no person is in danger of injury when they are used. The first five (Tower – Pump/Floor) are set up to toggle. Click on them with the mouse pointer to turn them on and repeat to turn them off.
- 4.) **Additional Indicators** – These additional indicators allow you to observe the condition (on or off) of other wash processes as well as the three main wash operation switches.

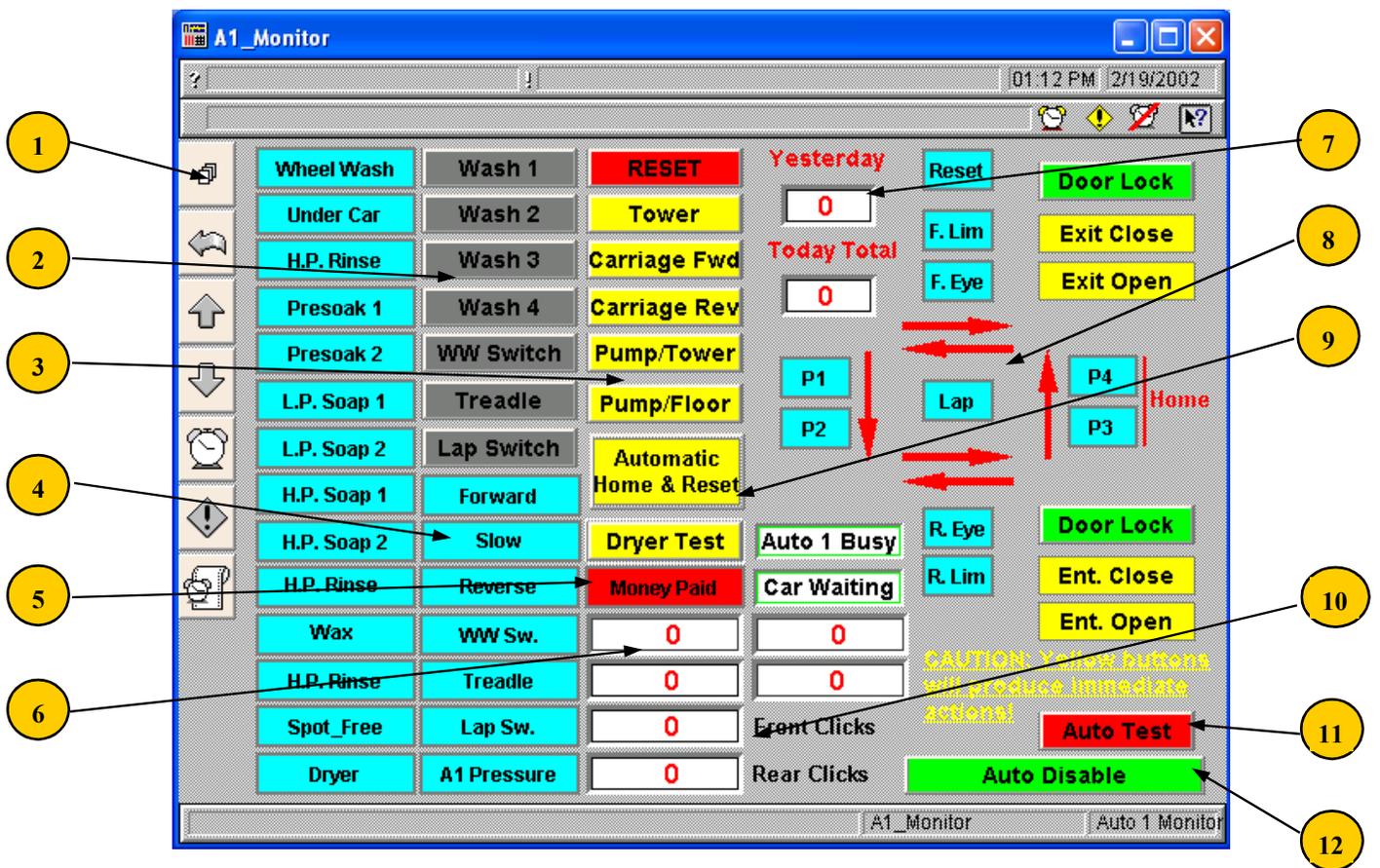


Figure 03

5.) **Money Paid** – This indicator shows you when the money required is satisfied when the H-S control system is the Autocashier function.

6.) **Auxiliary Sizing System**— These four displays indicate the front and rear sizing data. The left two are the front and rear established vehicle lengths. The right hand displays show the active sizing process. Front data is on top. Rear data is on the bottom. A input on Node 16, 10 or 41 at number 11 activates this feature.

7.) **Yesterday & Today** – Yesterday’s and current today’s auto total.

8.) **Adjustable Track System** – These indicators allow you to monitor the status of the inputs that control the adjustable track system. Green indicates an on condition. For example, in the figure above, we see that the tower is in the home position with both the front and rear electric eyes “seeing” each other. This usually indicates that there is no car in the bay at the time. By observing the operation of these indicators, you are able to know exactly what the automatic is doing and if it is operating correctly.

9.) **Automatic Home & Reset** – This button allows you to place both the tower and the tower carriage in the home position after service or malfunction. BE SURE THE BAY IS CLEAR OF PEOPLE AND VEHICLES BEFORE USING EITHER FEATURE. This function automatically RESETS the unit and places it in service.

10.) **Encoder “Click” Indicator** – These indicators allow you to monitor the front and rear encoder “clicks” as the carriage moves forward or reverse. A “click” is simply one input pulse from the encoder proximity switch. They are used to determine distance the unit will clear the front or rear of the vehicle during the wash process.

11.) **Test Button** – This button allows you to test the adjustable track system without a car present. To use this feature, click on the Test button, select a wash, click on the Wheel Wash switch and click on the Treadle switch. The carriage will travel to the front limit, the tower will move to the passenger side, then the carriage will travel all the way to the rear limit, the tower will move to the driver’s side and then the carriage will move forward to advance to the next cycle. When the wash finishes, the Treadle and Test switches will automatically release.

12.) **Auto Disable** – The Auto Lockout feature allows you to safely lock out the operation of the automatic wash system during service or malfunction. A flashing red indicator tells you that the system is locked out. NEVER UNDO THIS CONDITION FROM A REMOTE COMPUTER WITHOUT FIRST CHECKING WITH ON-SITE PERSONNEL. While active, the Auto Lockout also prevents the Autocashier from accepting money.

Basic System Operation – Auto 1 & Auto 2 Setup

The use of these screens are used in the basic structure of the automatic washes operation. You use these screen to select the cycles you wish the unit to perform for each of the four available washes. The construction of each setup segment is the same. You select the item by clicking on it with your mouse. When selected, the items turn green. They are reset by the Reset button located under the segment.

1.) **Wash # 1 Cycle Selections** – Use these buttons to select the cycles you want your automatic to perform on Wash # 1.

2.) **Wash # 2 Cycle Selections** – Use these buttons to select the cycles you want your automatic to perform on Wash # 2.

3.) **Wash # 3 Cycle Selections** – Use these buttons to select the cycles you want your automatic to perform on Wash # 3.

4.) **Wash # 4 Cycle Selections** – Use these buttons to select the cycles you want your automatic to perform on Wash # 4.

5.) **Reset Button** – All reset buttons appear like this one. They reset the selections for the items immediately above them.

6.) **Undercarriage Options** – Select optional, separate undercarriage when available.

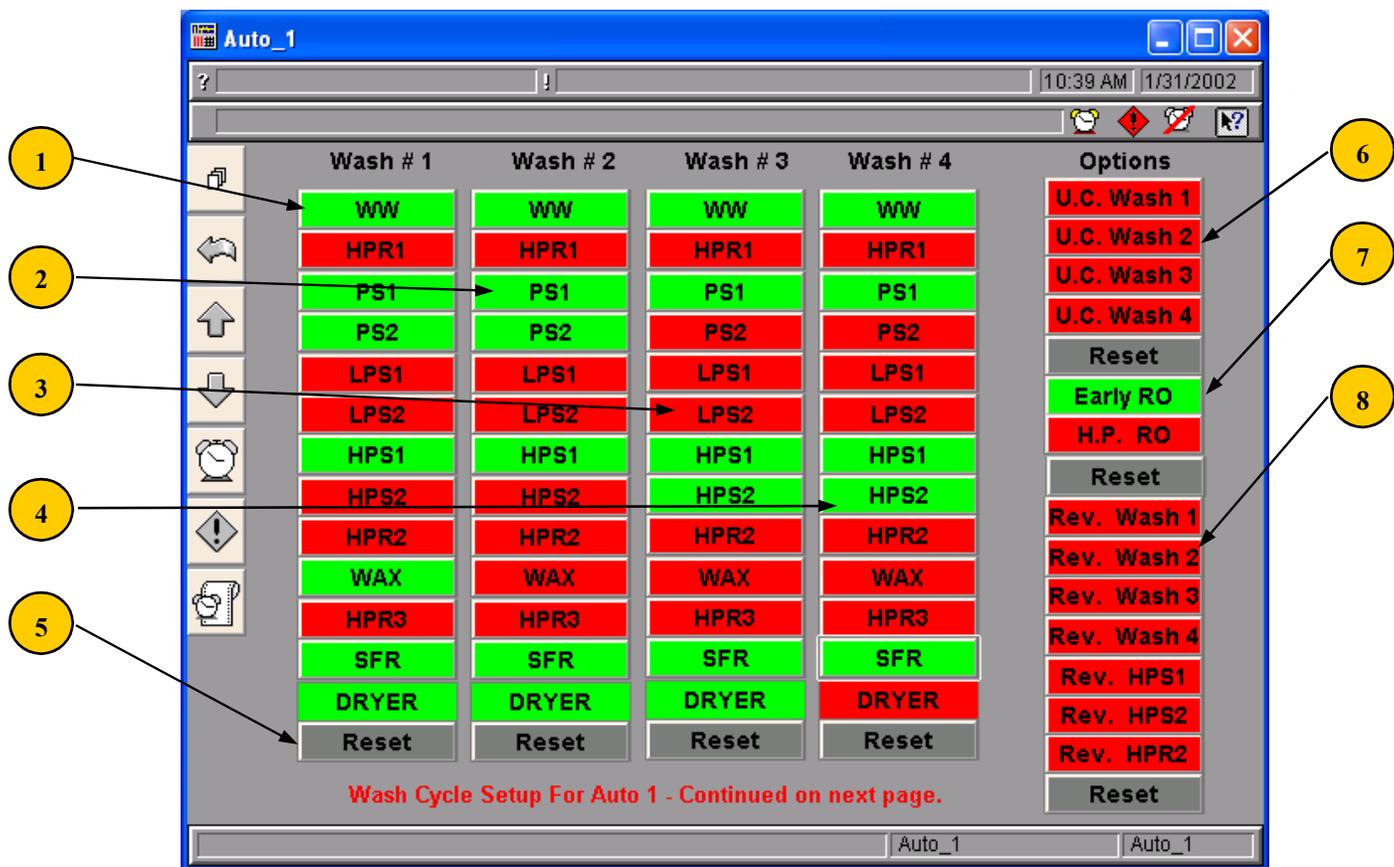


Figure 04

7.) **Spot-Free Options** – Use these buttons to select either Early Spot-Free Rinse or the high pressure Spot-Free Rinse option.

8.) **Tower Reverse Options** – Use these buttons to select the appropriate tower reverse options. Note the cycles on which the reverse options are available.

Basic System Operation – Auto 1 & Auto 2 Additional Setup

These screen allow you to set additional wash parameters.

1.) **Triple Foamer Selection** – Use these buttons to select the cycle and wash you wish do dispense the Triple Foamer Cycle. Be sure to take in to account the chemical characteristics of the cycles immediately preceding and following the TF Cycle to avoid chemical incompatibility and rinsing problems.

2.) **Triple Foamer Reset** – This button resets the Triple Foamer selections.

3.) **Door Control Delays** – Use these inputs to set the close delays on your doors.

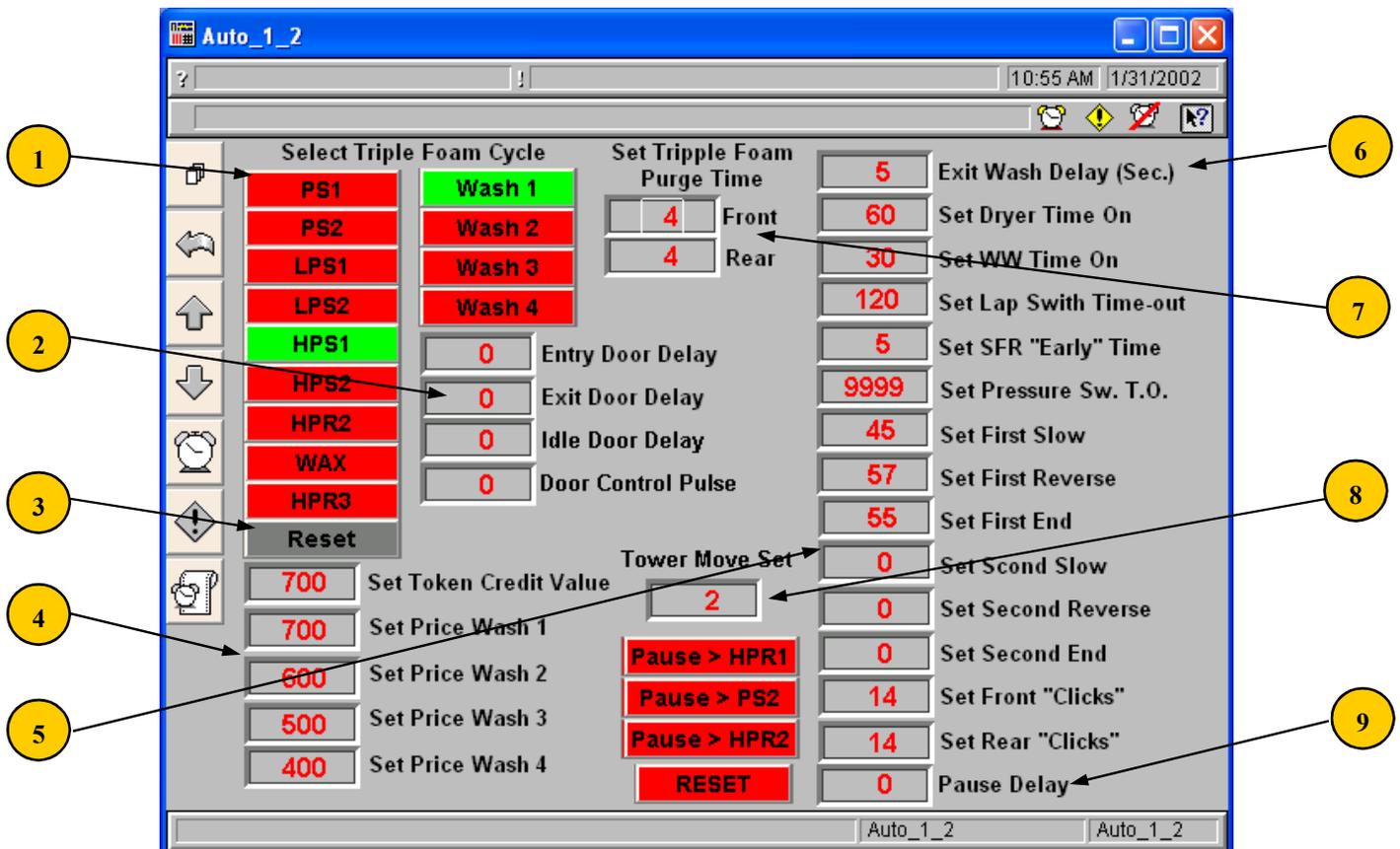


Figure 05

4.) **PAW/H-S Autocashier Settings** – Use these numeric inputs to enter the appropriate values for wash prices and tokens. These settings do NOT affect the Hamilton or Enterlink units.

5.) **Additional Numeric Inputs** – These are very important operating parameters. The one marked with an (*) are required for the correct operation of your automatic washes.

Listed below are the suggested initial settings (**XX**) for these inputs:

a.) **Set Dryer Time** – This setting controls the amount of time (seconds) the dryer output is on. This output must control the dryer motor contactors in order for this function to control actual dryer time. **(60)**

b.) **Set WW Time** – This setting control the amount of time (seconds) the wheel wash cycle is on while the vehicle enters the wash bay. **(30)**

c.) **Set Lap Switch Time-out** – This sets the amount of time (seconds) the unit has to complete one wash cycle. The average cycle is approximately 30 seconds, so this figure must exceed the longest cycle used. **(120)**

- d.) ***Set SFR “Early” Time*** – This setting controls the time (seconds) into the cycle previous to the regular Spot-Free Cycle, that the unit will switch to Spot-Free Rinse. This setting must take into account that the length of the car will affect the position around the vehicle at which the change will occur. **(25)**
- e.) ***Set Pressure Sw. T.O.*** – Your unit may be equipped with pressure sensors that measure the operating pressure of the system. If this pressure falls below a pre-set level, the unit shuts down. This setting controls the time (seconds) the unit has to maintain the correct operating pressure. **(20)**
- f.) ***Set First Slow*** – Use this setting to control the time (seconds) into the selected cycle, that the tower will first enter the tower reversing mode. This setting will usually be used for reversing at the front of the vehicle. **(35) Right digit is 1/10 sec.**
- g.) ***Set First Reverse*** – Use this setting to control the time (seconds) into the first slow process, that the tower will reverse direction. **(35) Right digit is 1/10 sec.**
- h.) ***Set First End*** – Use this setting to control the time (seconds) into the first reverse process, that the tower will resume normal operation. **(70) Right digit is 1/10 sec.**
- i.) ***Set Second Slow*** – Use this setting to control the time (seconds) into the selected cycle, that the tower will enter the second tower reversing mode. This setting will usually be used for reversing at the rear of the vehicle. **(35) Right digit is 1/10 sec.**
- j.) ***Set Second Reverse*** – Use this setting to control the time (seconds) into the second slow process, that the tower will reverse direction. **(35) Right digit is 1/10 sec.**
- k.) ***Set Second End*** – Use this setting to control the time (seconds) into the second reverse process, that the tower will resume normal operation. **(70) Right digit is 1/10 sec.**
- l.) ***Set Front “Clicks”*** - This setting controls the number of encoder impulses the unit will require before the tower moves around the front of the vehicle. **(15)**
- m.) ***Set Rear “Clicks”*** - This setting controls the number of encoder impulses the unit will require before the tower moves around the rear of the vehicle. **(15)**
- 6.) **Exit Wash Delay** – Set the length of time you wish the exit light to remain on at the end of each wash. This will also delay the loading of the next wash. **(5)**
- 7.) **Triple Foam Purge Delay** – Allows you to set the purge time on the Triple Foam Function . **(7 front—10 rear)**
- 8.) **Tower Move Set**—Time allotted for tower to move after carriage stops. **(2)**
- 9.) **Pause Set**—Allows for carriage to pause between cycles. **(0)**

NOTE: These settings are suggested only. They should be accurately set and tested during installation and continually monitored.

Basic System Operation – Self-Service Setup

This important screen is used to set the operating parameters of the self-service system. Many of these parameters must be inputted before your self-service system will operate properly.

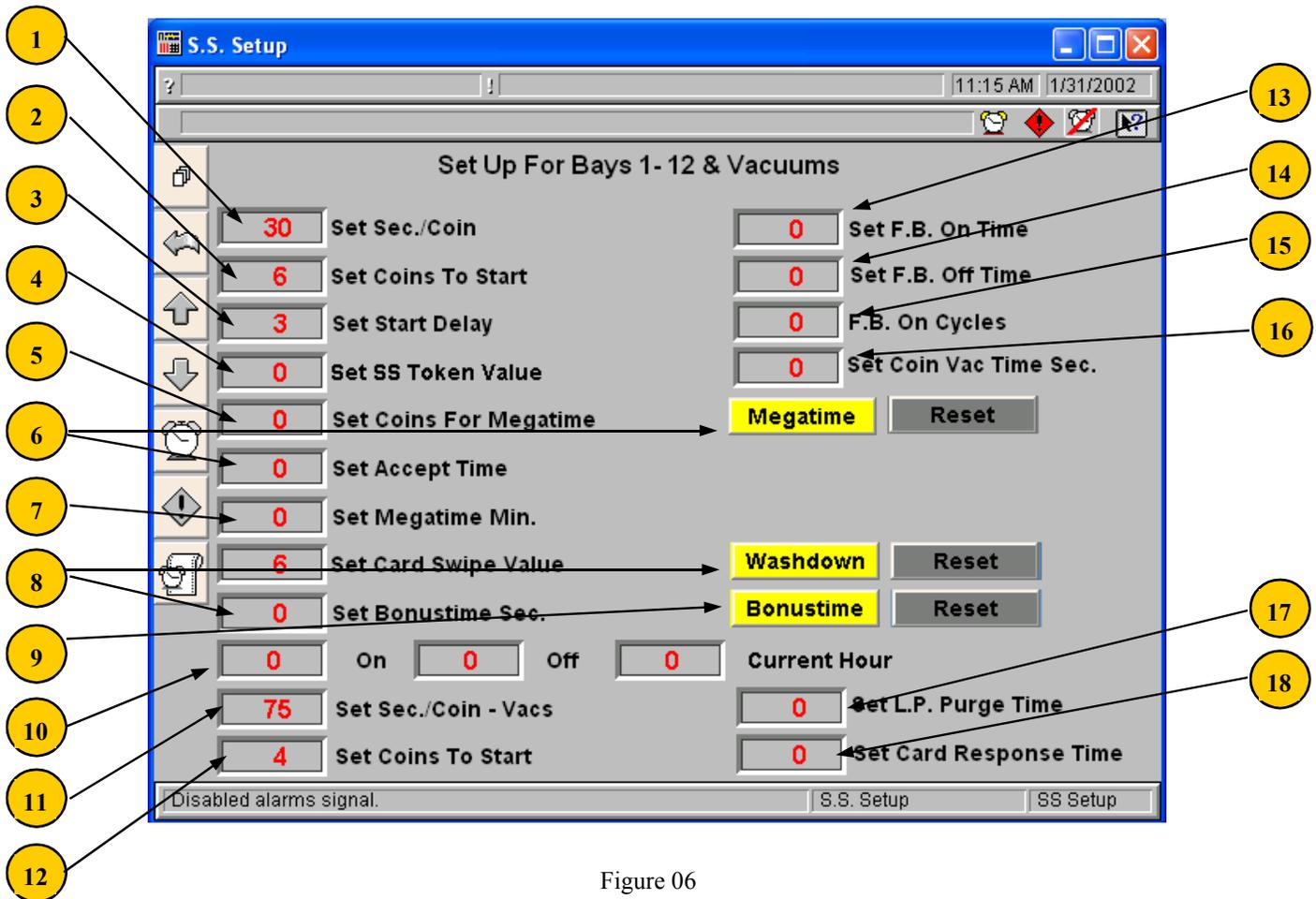


Figure 06

1.) **Seconds Per Coin** – You set the timing seconds for each coin deposited here. Enter a whole number without decimals. The car wash industry has more or less standardized on a four minute cycle time. To adhere to that standard, simply divide 240 (4 minutes) by the number of coins you wish to require for your bays to start. \$1.50 start time for each cycle would then require 40 seconds per coin.

2.) **Coin To Start** – This is the other variable in your self- service pricing. This is the minimum number of coins needed for timed output to activate bays. We mentioned the standard four minute cycle above, but you may set any combination of time per coins and coins to start you wish. There may be a change required in your messaging system, however.

3.) **Start Timing Delay** – This setting delays the countdown of the timing system as long as the customer is depositing coins prior to time starting. It is usually set at 3 seconds. This feature allows your customer to add coins in addition to the minimum start number without losing time in the process.

4.) **Coins To Start Megatime** – Megatime is an exclusive H-S feature allowing you to offer the unlimited or extended time concept in your car wash. Megatime is a simple way of offering discounts to customers who wish to deposit a greater dollar value to receive the discount. The logic is that your revenue will increase over the standard usage method. This concept is called unlimited time throughout the car wash industry. Here is where you set the number of coins required to activate the system. This number includes the number you have set as a minimum start value.

5.) **Megatime Minutes** – You set the initial time value for Megatime here. This value overrides the seconds per coin value. Once timing starts, the value for each additional coin deposited reverts to the default you set above.

6.) **Megatime Accept Time** – This setting allows you to establish a time limit within which the customer must decide to use the Megatime feature or regular time. The limit clock starts running after the minimum start number of coins has been deposited. The setting is usually 15 seconds.

6a.) **Megatime Button** – This button is used to activate the Megatime feature. When you click on this button with the cursor, the indicator light to the right turns from yellow to green, telling you that Megatime is now active. You turn off the Megatime feature by clicking on the Reset button to the right of the indicator.

7.) **Coins For Card System** – Your H-S Barcard system allows you to offer your customer free self-service washes without the use of tokens or coins. This setting simulates the time that would be registered by an equal number of regular coins set in # 1.

8.) **Wash Down Minutes** – (Option) - If specified at initial setup, you may have a bay wash down option which allows you to operate each bay manually for clean-up or customer service. You may have the feature deliver the same time as a card value or enter a specific number of minutes. Specify at initial programming.

8a.) **Wash down Select Button** – The Select Button, Indicator and Reset Button operate the same as Megatime.

9.) **Bonustime Seconds Per Coin** – Bonustime is another exclusive H-S feature. When activated, it automatically enters a new time value for coins deposited at the pre-selected time you set. This feature is used to offer discounted pricing during off hours.

9a.) **Bonustime Select Button** – The Select Button, Indicator and Reset Button operate the same as Megatime.

10.) **Time On – Time Off – Current Hour** – The first two inputs allow you to set the time on and off for Bonustime. Use the 24 hour system. The current hour can be entered on an Omron System to establish the correct hour. On Modicon Systems, this value is read from the PLC's internal clock. The correct value must be set on initial programming.

11.) **Vacuum Seconds Per Coin** – This sets the seconds per each coin deposited in your vacuums.

12.) **Vacuum Coins To Start** – This sets the minimum coins required to begin timing countdown. As in the case of the bay timing system, any combination of seconds per coin and coins to start can be used.

13.) **Foam Brush Blowout On Time** – This input is used to set the “on” time duration of the foaming brush freeze protection system. This system is activated by the temperature setting of the beginning weep temperature.

14.) **Foam Brush Blowout Off Time** – This input determines the time between blowout “on” times.

15.) **Foam Brush Blowout Cycles** – This value sets the number of blowout “on” times during each blowout cycle.

16.) **Set Coin Vacuum Run Time** – Set the number of seconds the coin vacuum system will run after the last coin has been deposited.

17.) **Low Pressure Purge Time** – Low Pressure Purge Time is an exclusive PAW feature which allows you to stop time countdown when the customer first selects tire cleaner or pre-soak. This feature allow these low pressure chemicals to purge the water from the spray hose and reach the wand without reducing the customer's time. You may enter any time value in seconds. The usual value is 15 seconds.

18.) **Card Response Time** – This setting is the response time the car wash system uses to confirm the start of a bay our the automatic in response to a frequent washer card swipe. The usual value is 5 seconds.

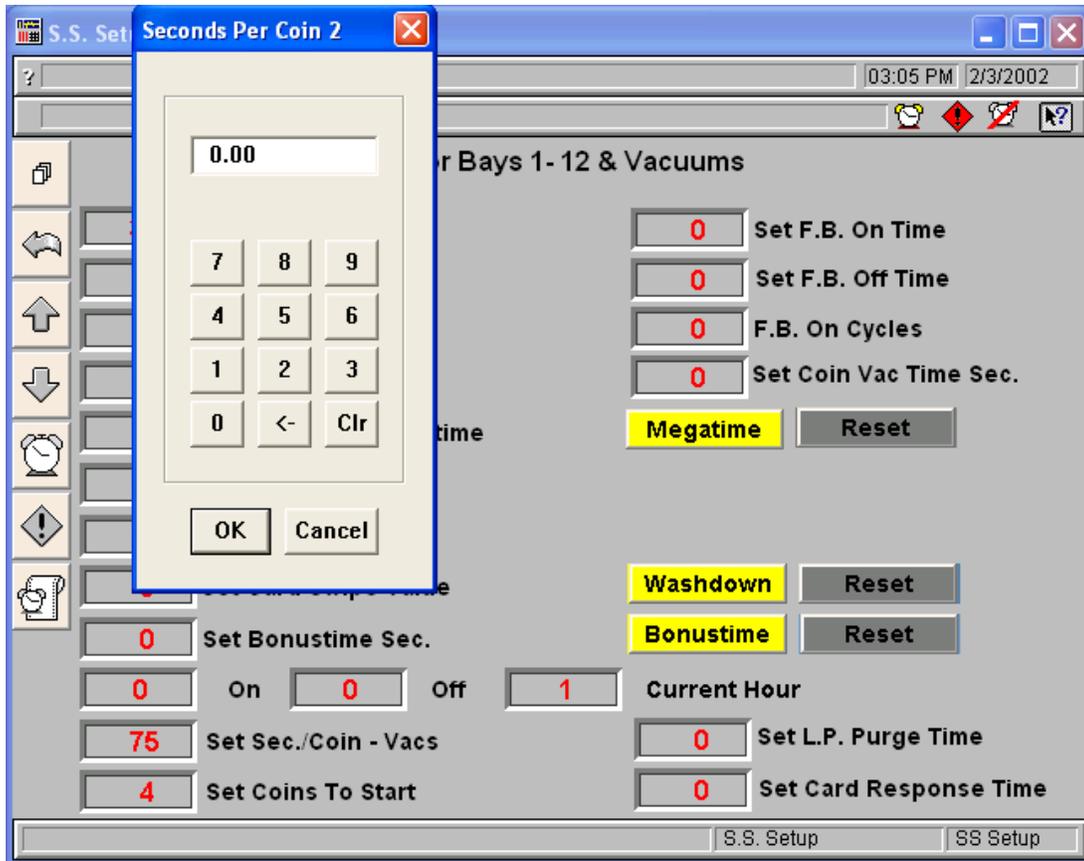


Figure 07

Setup for Special Self-Service Bays

It may be necessary to setup a self-service bay with different vales as in the case of a truck bay. This may be accomplished as long as this bay (or bays) are in a separate CPU. Version 5.1 allows you to set all three CPUs at one time by entering data from the keyboard. This is done by using the cursor to highlight the input box. Do not click on the box. With the box highlighted by the white rectangle, enter a value from the keyboard. This value will be entered in all three CPUs or to as many as are in your system.

To enter data to CPUs individually, place cursor over the input box and it will be highlighted as above. Left click the mouse and a number pad input box will appear. These are labeled as to the CPU they address. Enter the data and close. The next CPU Number Pad will appear. Use this method to enter data to any self-service area you want to be unique to that CPU.

Basic System Operation – General System Settings

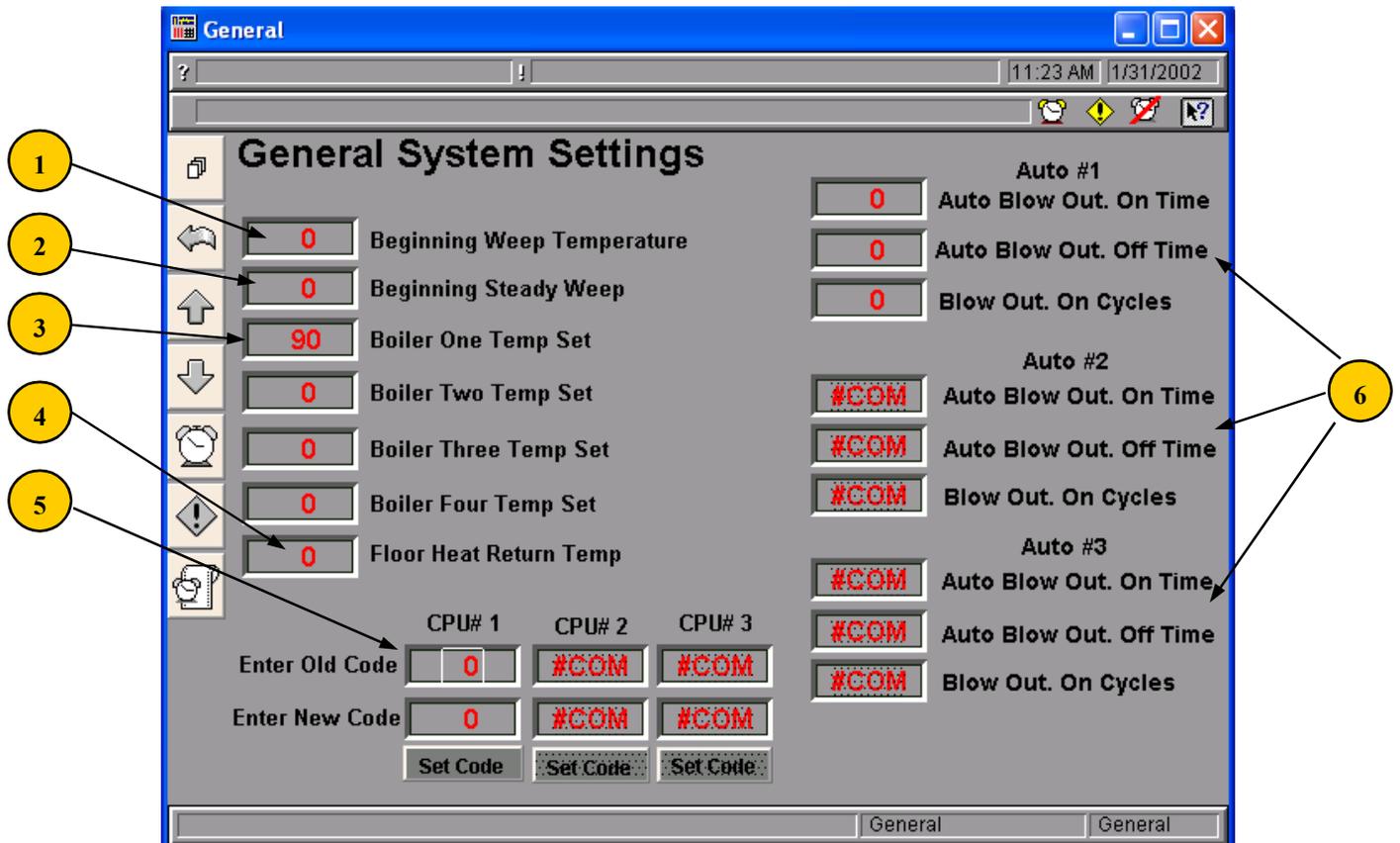


Figure 08

- 1.) **Begin Weep Temperature** – This input determines the temperature at which the weep system begins to operate. Weep will begin at any temperature below this setting.
- 2.) **Begin Steady Weep** – This input establishes the temperature at which the weep system switches from a cycling system to steady system.
- 3.) **Boiler Settings** – This section allows you to set the operating temperature of up to four devices. These may be boilers or instant water heating devices. Refer to the wiring diagram for proper installation.
- 4.) **Floor Heat Return** – This input establishes the temperature the floor heating system will attempt to maintain during floor heating periods. The floor heating system will turn on with the weep temperature setting.
- 5.) **Set New Reset Code** – Entering the existing (old) code and your desired new code in the appropriate boxes, sets that new code in the system when the “Set New Code” Button is clicked. **Be sure to enter a zero or incorrect number when finished so that coded is not revealed.**
- 6.) **Auto Air Blowout** – Sets the air blowout parameters for the automatic only.

Section III– Car Wash Operating System – Owner/Manager Screens

In this section we will cover those portions of the PAW/H-S Control System that are reserved for the wash owner, franchisee or his/her designated manager. These screen allow the basic system to be changed, data to be retrieved and operating parameters to be changed. It is crucial that only qualified and trusted personnel have access to these screens. Your system came configured with certain security information already in place. **YOU MUST NOT CHANGE THESE SECURITY SETTINGS WITHOUT CONSULTING WITH THE DENVER OWENER/FRANCHISE SUPPORT OFFICE.**

Automatic Data

This screen shows you the raw automatic data generated by your automatic wash. “Raw” means that the data is presented in the most basic form.

- 1.) **Enter Reset Code** – Enter your personal reset code here.
- 2.) **Reset Buttons** – Use these buttons to reset to zero the resettable count data.

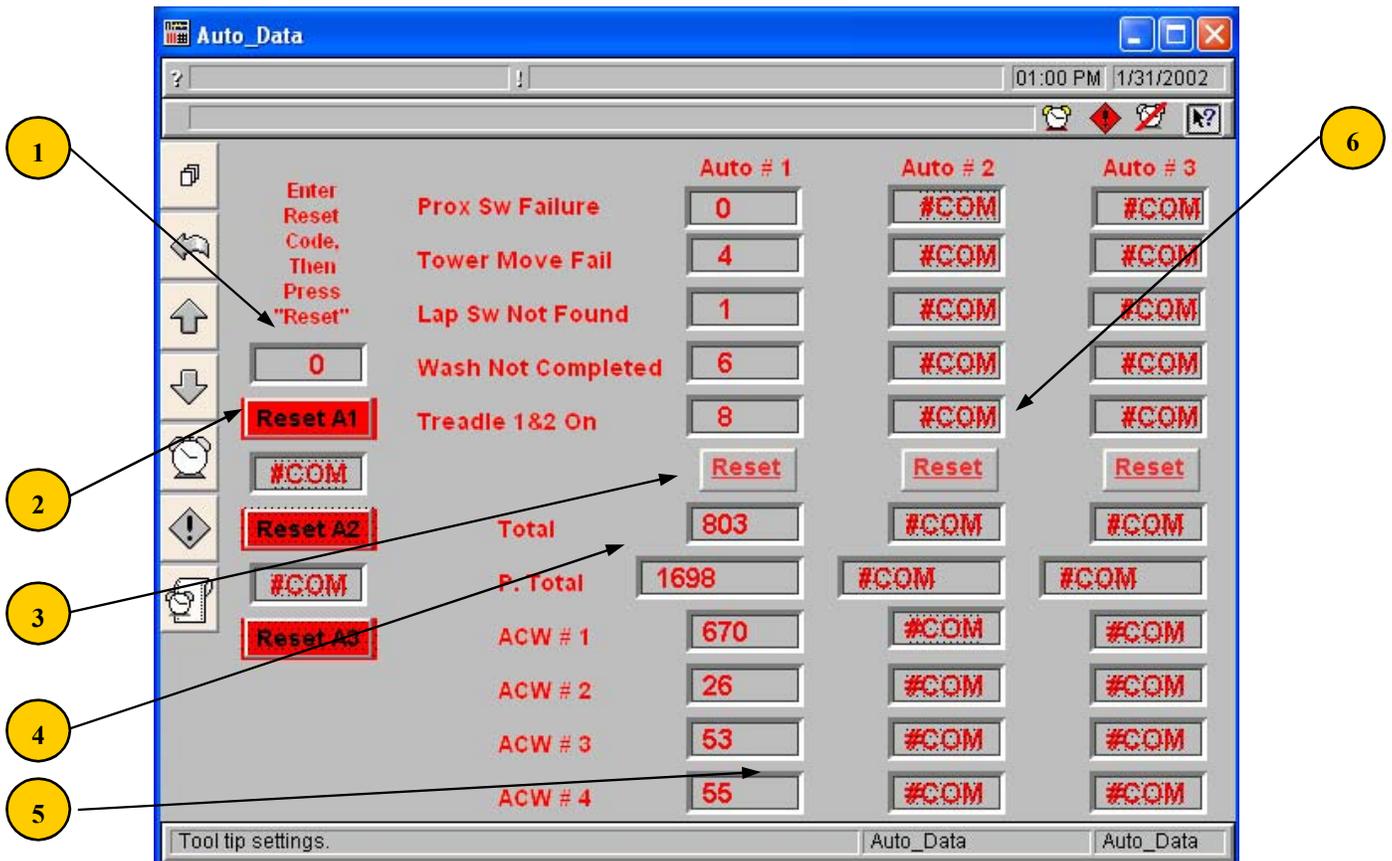


Figure 9

3.) **Resettable Wash Number** – This is a resettable number. It resets with the reset button above.

4.) **Permanent Wash Number** – This is a non-resettable number.

5.) **Autocashier Data** – These numbers represent the washes as loaded from the Autocashier. They are reset with the reset button above.

6.) **Special Reset Data** – These numbers show you how many time your automatic has performed selected reset functions. They are:

a.) **Proximity Switch Failure**—The unit has shutdown because it senses a problem with one or more tower proximity switches. Problem proximity switch will be indicated on the Monitor Screen.

b.) **Tower Move Fail** – This is the number of times the system has shut down because the tower did not begin to move after the carriage movement stopped during a wash. This shutdown is “fatal.” This means that operator intervention is required to put the unit back in service.

c.) **Prox Sw Not Found** – This is the number of times the system has shut down because the lap switch was not found during the wash cycle. This shutdown is “fatal.” This means that operator intervention is required to put the unit back in service.

d.) **Wash Not Completed Reset** – This is the number of times the system has reset itself. It is not a “fatal” reset, meaning that the unit will take the next car and continue washing without operator intervention. It usually occurs when a customer leaves without finishing their wash. It occurs automatically 30 seconds after the customer leaves the bay and the front and rear photo eyes are clear.

e.) **Treadle 1 & 2 On** – This is the number of time the system experienced the Treadle Switch being on when a car crosses the Wheel Wash Switch. The usual causes are a shorted treadle switch or the treadle test switch being left on. This shutdown is “fatal.” This means that operator intervention is required to put the unit back in service.

These reset faults are reset to zero by using the reset button located just below the displayed reset fault numbers. You must have entered the correct reset code.

Self-Serve Data

Data for the self-serve bays is located on the SS Data CPU 1 Screen as shown on the following page. There are resettable and permanent numbers.

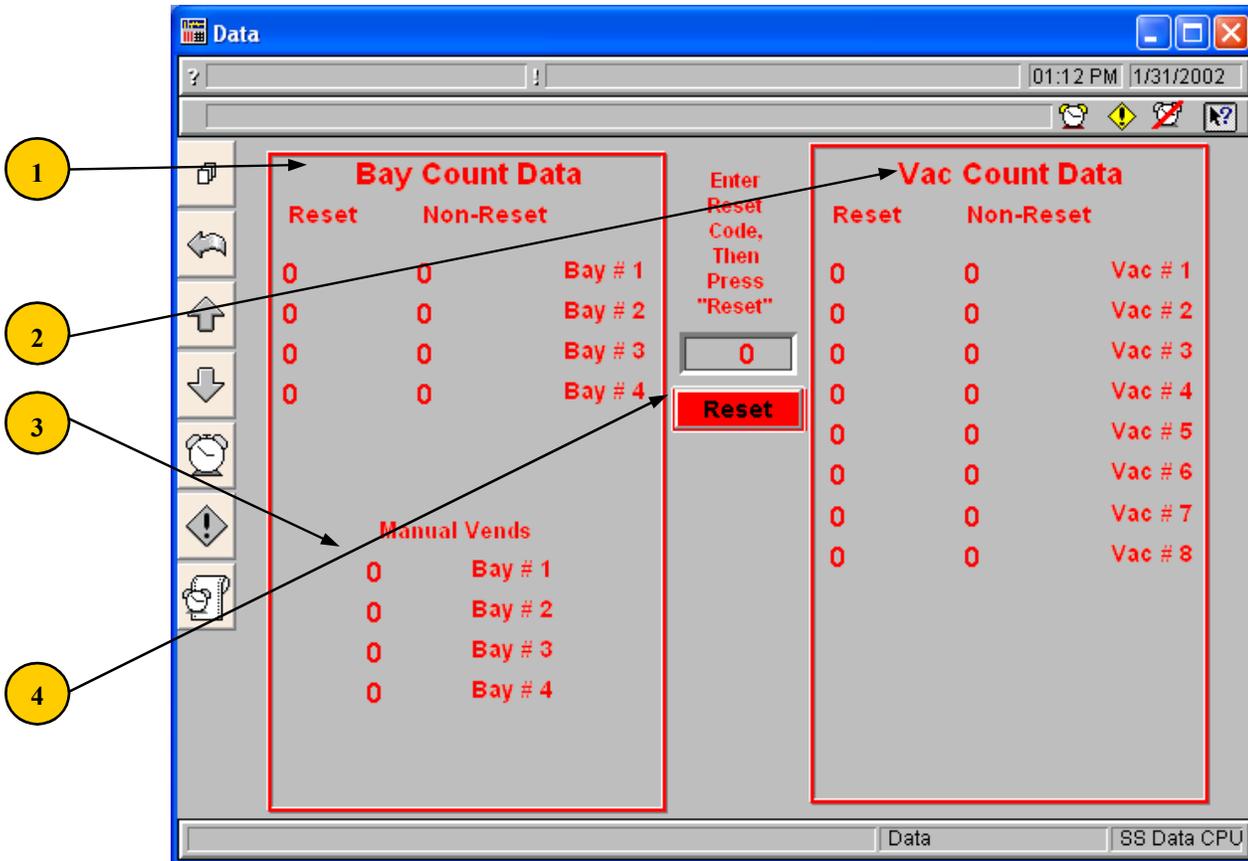


Figure 10

1.) **Bay Counts** – These counts are raw quarter input data for each bay. The left column of numbers can be reset with the correct entry of the reset code and the Reset Button between the counts. This button also resets all the resettable numbers on this screen. The right column numbers are permanent and cannot be reset.

2.) **Vacuum Counts** – These counts are raw quarter input data for each vacuum. The left column of numbers can be reset with the correct entry of the reset code and the Reset Button. This button also resets all the resettable numbers on this screen. The right column of numbers are permanent and cannot be reset.

3.) **Manual Bay Starts** – These registers count the number of times the bays are started with the manual start buttons on the Overview Screen. They are reset with the reset button.

3.) **Reset Button** – The Reset Button clears all counts on this page except for the non-resettable numbers. You must enter the correct code before the reset button becomes active.

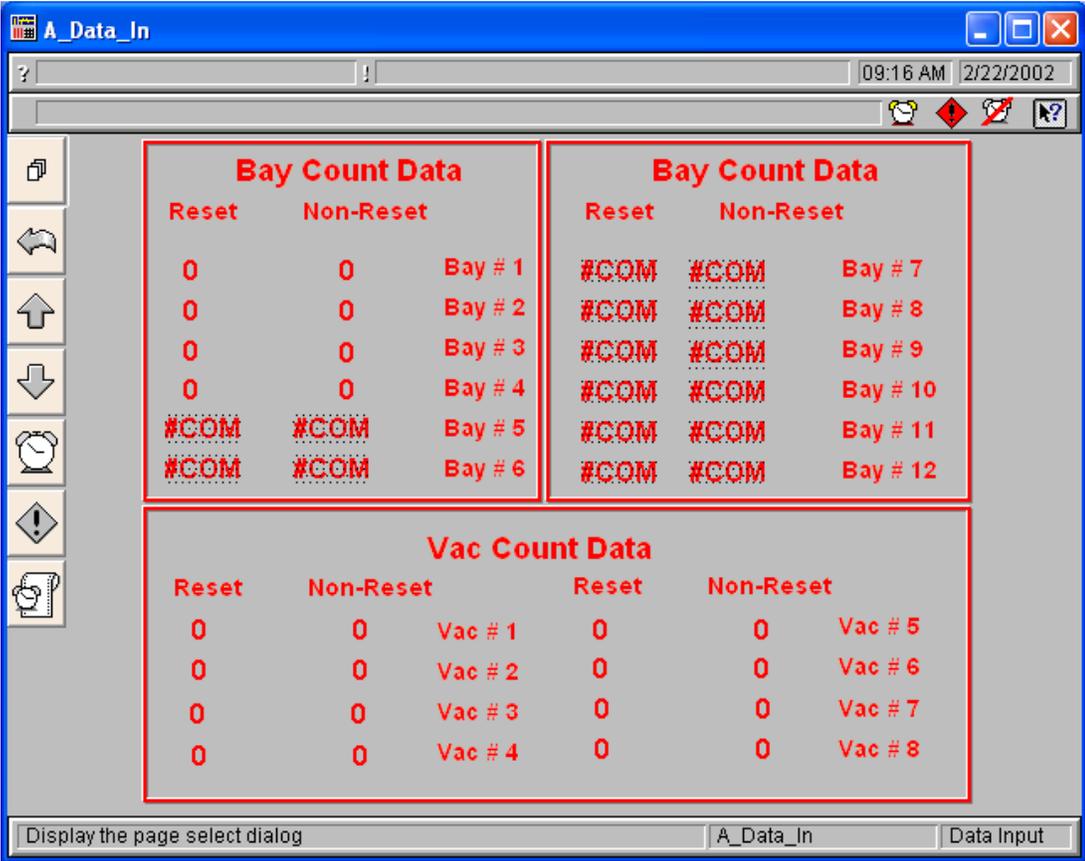
Data for CPU #2 and CPU #3 are on the **SS Data CPU #2 & CPU #3** Screen.

Data Input Screens

There are two Data Input Screens. They are provided so that the owner may re-enter lost data, make adjustments to correct data or re-enter data from one CPU to another upon program upgrade.

They are arranged similar to the data pages they represent. The difference is that they contain Input Data Areas. Data is changed by simply placing the cursor over the appropriate data area. A white box around the area indicates it ready to receive input. Enter the desired data fro the keyboard or left click the area and enter data in the pop-up box.

Self-Serve Data is entered on the **Data Input** Screen. Automatic Data and special data is entered on the **Data Input (2)** Screen which is shown on the following page.

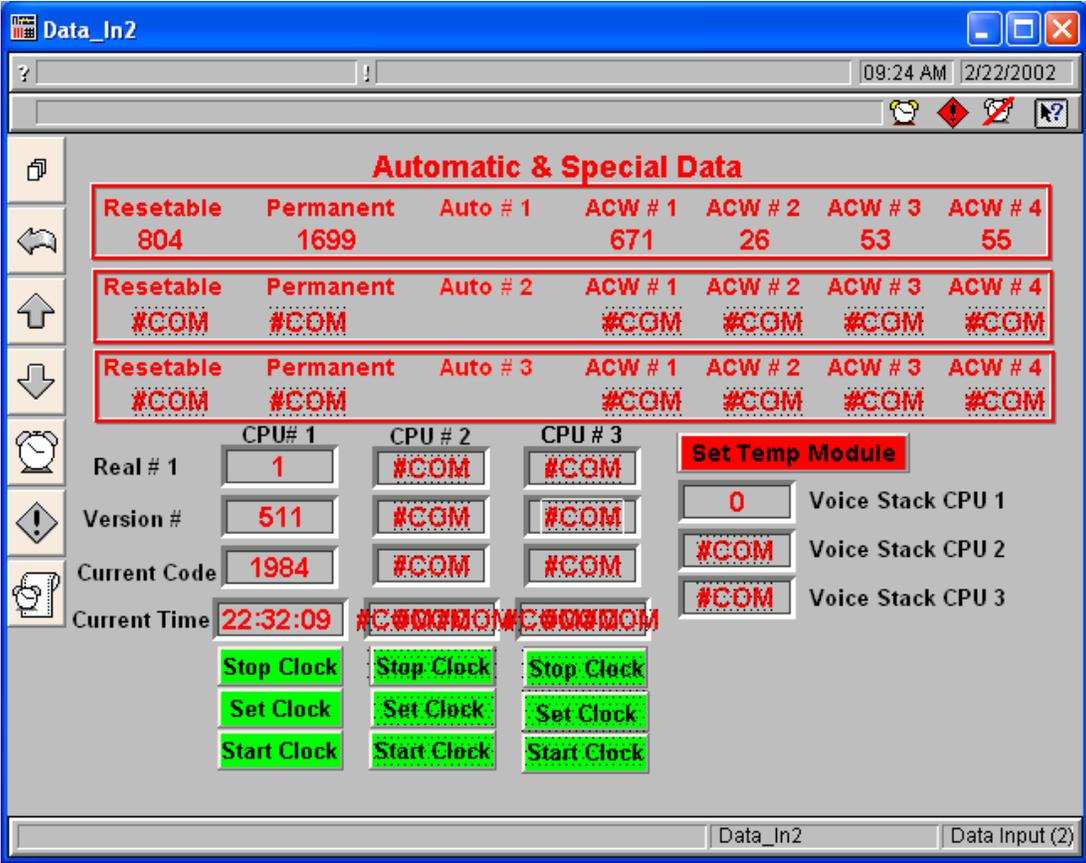


The **Data Input (2)** Screen is used to input Automatic Data or enter special data required by the operating system. Data is entered just as it is on the **Data Input** Screen.

Special Data includes Time-of-Day, Version Number, Real 1 math setup required for the permanent data entry registers, and the ability to zero the voice stack should this be required. In addition the **Set Temp Module** Button sets the proper registers required for the temperature system to operate.

Setting Time

1. Click on the **Stop Clock** Button.
2. Enter the correct time in the hour, minute and second registers.
3. Click on the **Set Clock** Button.
4. Click on the **Start Clock** Button.



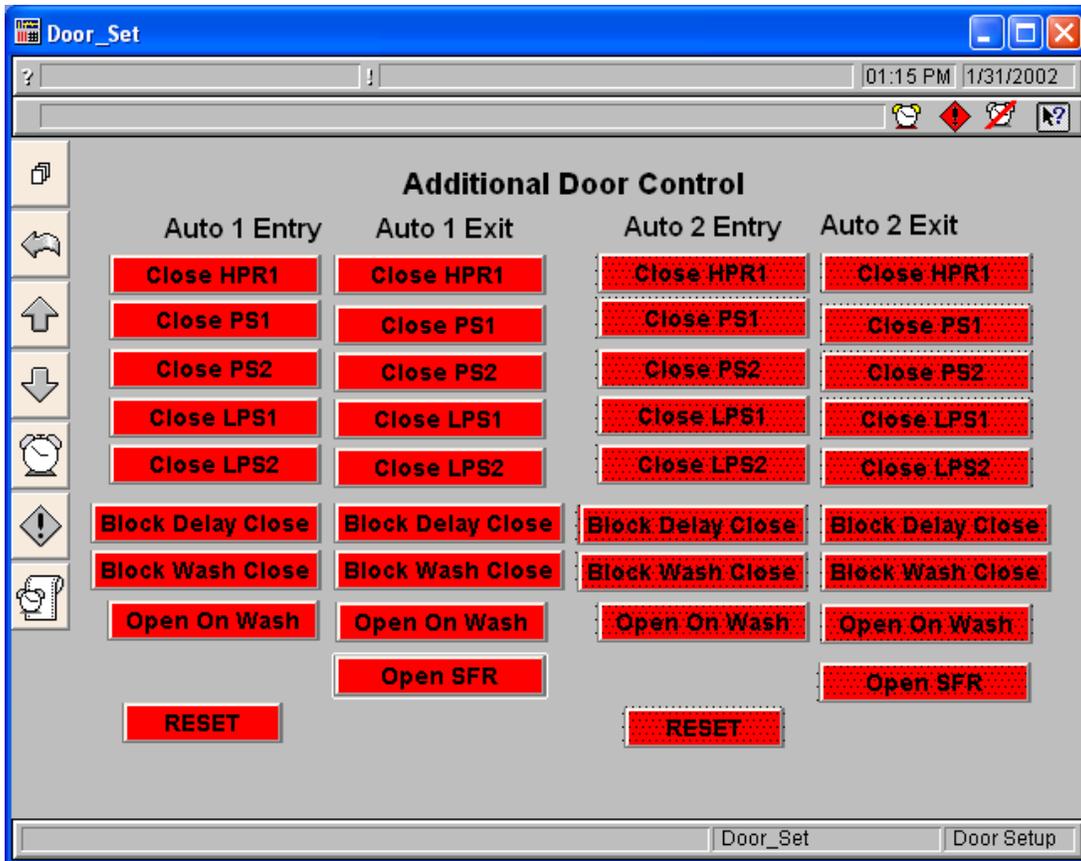


Figure 11

Special System Operations – This is a special screen allowing you to set a number of entrance and exit door operating parameters. It allows you to set additional door close pulses at both the entrance and exit doors and allows you to select the exit door to open on the spot-free rinse pass. The doors operate as follows:

ENTRANCE – OPEN

- On button
- On wash loading
- Remain open during wash *

ENTRANCE – CLOSE

- On button.
- After car reaches treadle and tower leaves prox 3 & 4.
- On delay after car reaches treadle.*
- After Drive-off reset.
- After wash idle.
- Selectable on additional door set screen.

EXIT – OPEN

- On button.
- On wash ending.
- On wash fault.
- Car leaving the treadle for more than three seconds, after being on treadle for one sec.
- Settable to open on spot-free when tower leaves prox 3 & 4.
- Remain open during wash *

EXIT – CLOSE

- On button
- On settable delay starting when wash ends. (Time resets on dryer end pulse)*
- Car returning to treadle for five seconds to finish wash.
- After wash idle.
- After Drive-off reset.
- On dryer ending.
- On dryer ending early select.
- On wash starting when car reaches treadle and tower leaving prox 3 & 4.*
- Selectable on additional door set screen

* = These features may be disabled or selected by settings on door set screens.

The selectable door closing features are only available if the cycle has been selected on the main wash setup on Auto_1 or Auto_2.

Using the above features should allow a wide variety of entrance and exit door open/close combinations.

Door Controls for Auto # 3 are on the Door Setup (2) page.

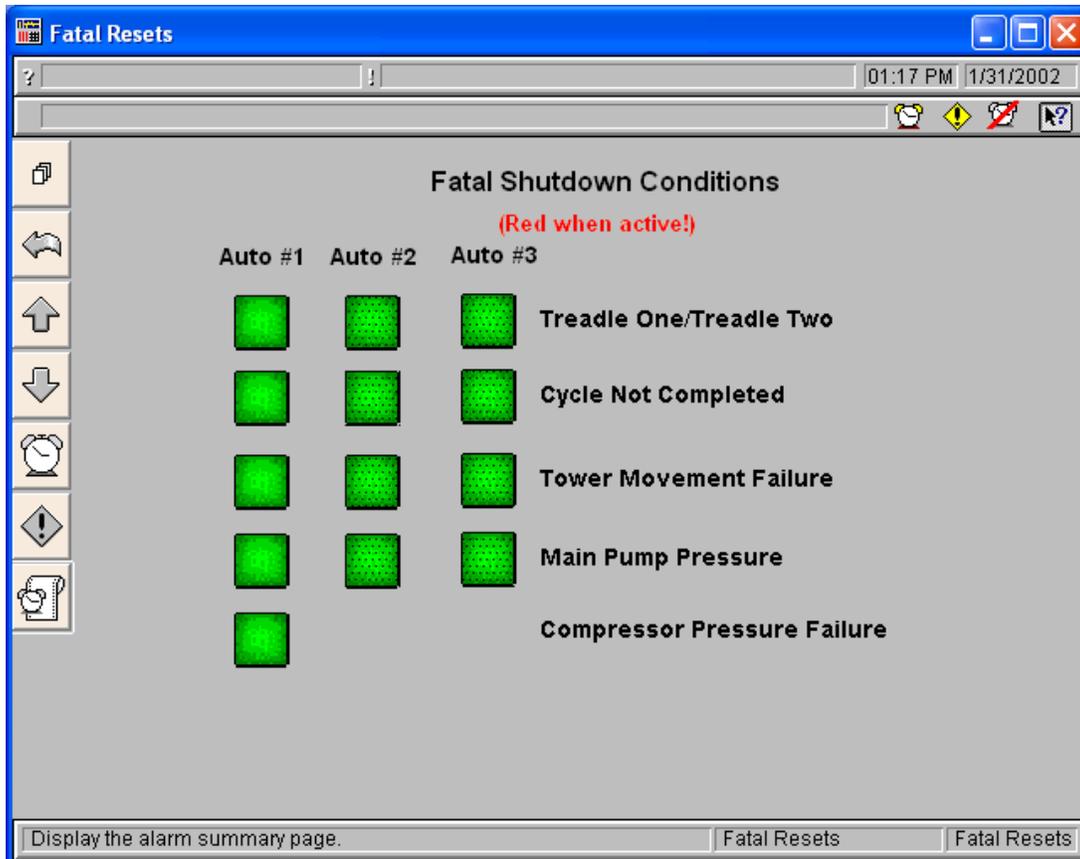


Figure 12

Special System Operations – Fatal Shutdowns

There are several conditions that result in the shut down of the automatic. This condition can only be cleared by a RESET on the Auto Monitor Screen.

The condition causing the shut down is illuminated on this screen to enable faster resolution of the cause.

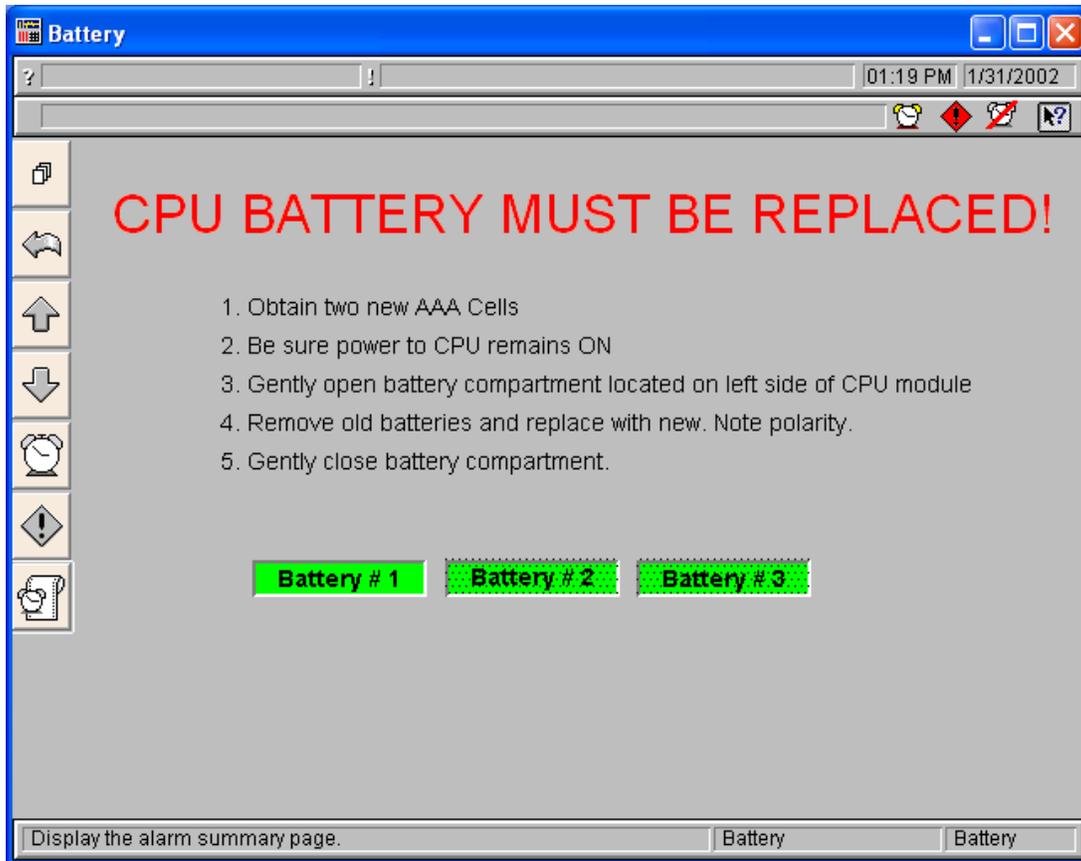


Figure 13

Special System Operations – CPU Battery Condition

This screen shows you the condition of the CPU Batteries. These batteries are responsible for maintaining the CPU Program Memory. If one or more of these indicators turn **RED**, replace the two AAA cells as directed on the screen.

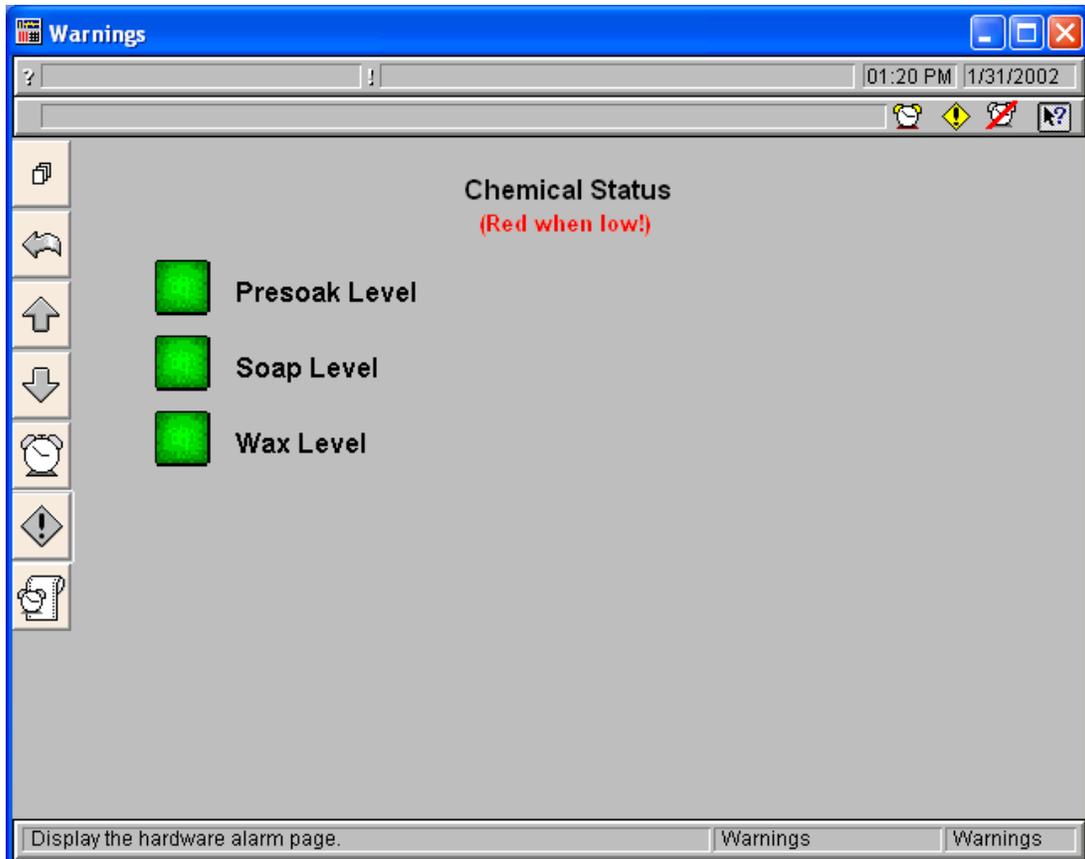


Figure 14

Special System Operations – Optional Warning Conditions

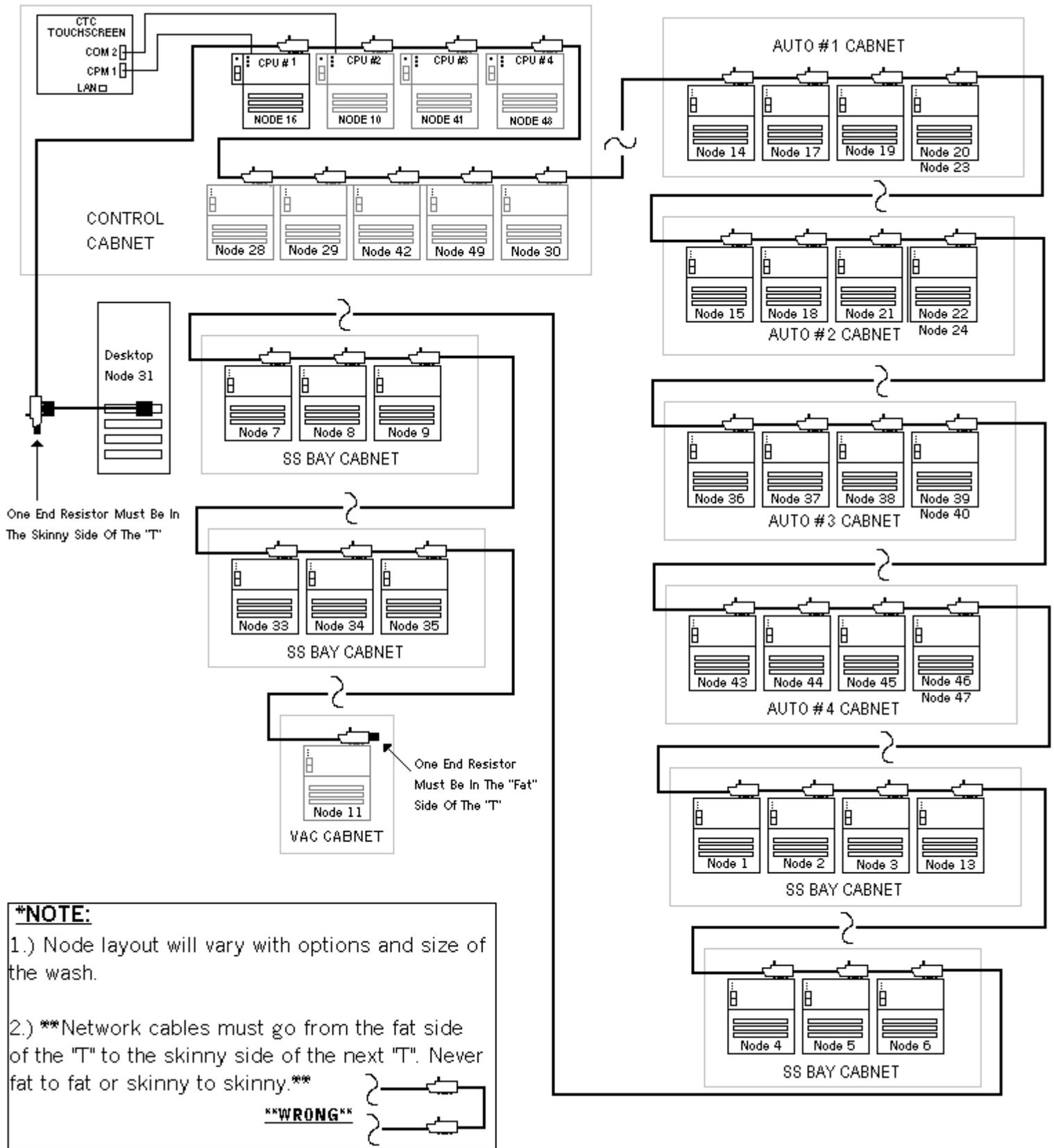
This screen shows you the optional warning conditions, in this case the level of the basic wash chemicals.

The operation of these warnings require additional, optional input devices.

NOTE : This operating system uses multiple CPUs to accomplish standardization and adequate I/O availability. Larger car wash units may require Data and Operating Parameters to be displayed on additional screens which address these additional CPUs. CPU #1 operates Automatic One, Bays 1-4, all vacuums and temperature functions. CPU #2 operates Automatic Two and Bays 5—8. CPU #3 operates Automatic Three and Bay 9—12.

This concludes the operating section of the MMI System. Any additional questions should be directed to your Distributor.

In the sections that follow, we will cover the exclusive H-S Barcard Marketing System.



Barcard/Credit Card System



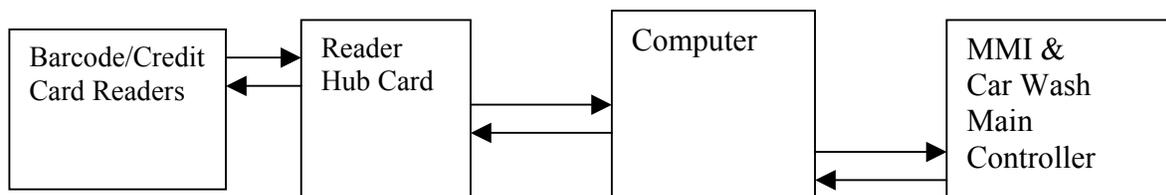
Overview

The function of the bar/mag reader system is to build customer loyalty, and to help us track customer activity. To This end the system integrates the following software programs.

Windows NT 4.0 Workstation
MMI FactoryLink/Citect
VB Interface
Barcard Program

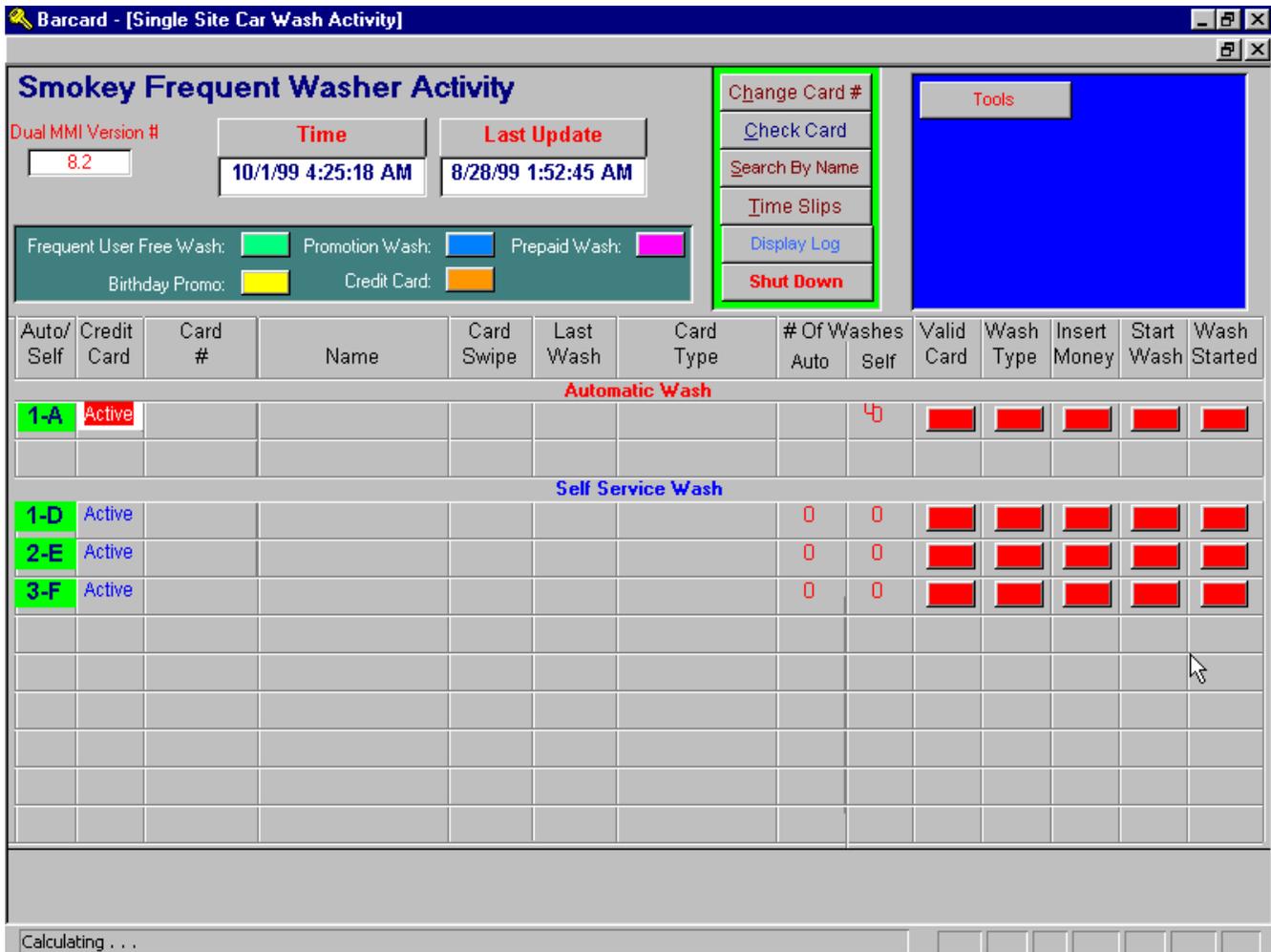
The system integrates the following physical components:

Carwash Main Controller
Computer
Barcode/Credit Card Readers
Reader Hub Card



The process is initiated when a customer swipes a Barcard or Credit card through the Barcode/Credit card reader. The VB Interface program receives the card information and passes it onto the MMI telling it a card has been swiped, Thus the audio Processing Message. At the same time VB Interface passes the card information into the Barcard Program to determine the status of the card, Valid, Promotion Count, Birthday Count, Prepaid Count and Wash Count. The Barcard Program searches the customer database for the card status, and then sends the appropriate code back to VB Interface. VB Interface then passes the appropriate code to MMI, which initiates the proper mechanical and electrical signals to the car wash machinery.

The on site car wash operators normally need only to understand the Barcard and MMI Screens.



Barcard Program Main Window

This is the Barcard Interface Window and displays the following information:

- #1. Software Version Number. This will change as new updates to the software are available and installed.
- #2. Time: Current Computer System time. It is important this is incrementing about every twenty seconds. If not incrementing, click the Shut Down button and restart the program.
- #3. Last Update: The date and time of the latest Home Office customer recorded update.

Columns

Column Auto/Self: Indicates which Automatic and Self Serve bays are active.

Column Credit Card: Will indicate if the bay is Active, and will accept credit cards.

Column Card #: Indicates the barcode number or “M/Card” when a credit card is swiped.

Column Name: Name of the Barcard holder if in the database

Column Card Swipe: Time the card was swiped.

Column Last Wash: Last Date Card was used

Column Card Type: Frequent User, Manager

Column # Of Washes: Wash count of prior washes

Column Valid Card: Indicates of the card swiped is valid or not.

Column Wash Type: Indicates type of wash, Frequent User Free Wash, Promotion Wash, Prepaid Wash, Birthday Promotion, etc..

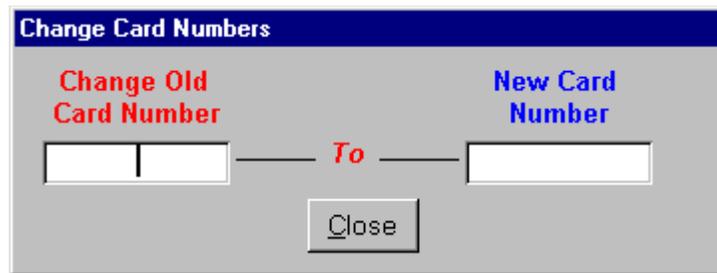
Column Insert Money: Frequent Wash card swipes need to insert money.

Column Start Wash: Indicates the card swipe generated a start wash signal. The is caused by a prepaid wash, frequent user free wash, promotion wash, etc..

Column Wash Started: Indicates that the Frequent User has inserted money and the wash was started.

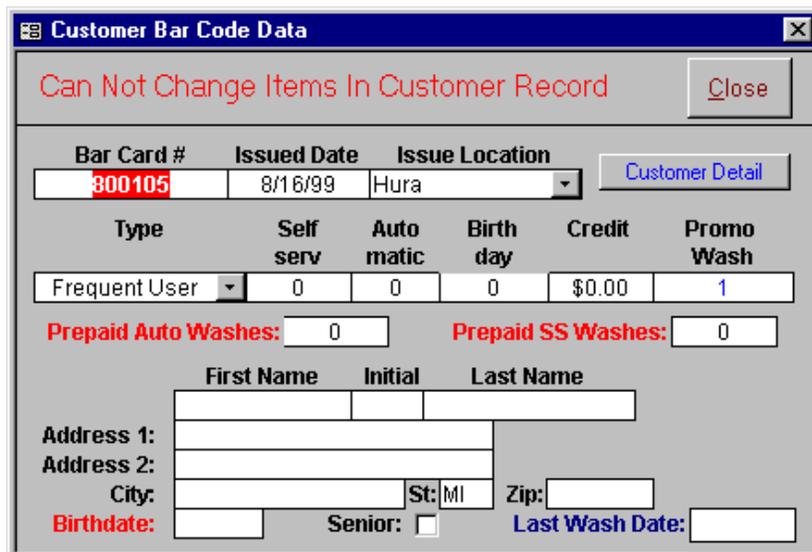
Buttons

Change Card: Used to change cards for customers who have lost cards, or old one has worn out.



A dialog box titled "Change Card Numbers" with a blue header. It contains two input fields: "Change Old Card Number" (in red text) and "New Card Number" (in blue text). A red "To" label is positioned between the two fields. Below the fields is a "Close" button.

Check Card & Search By Name These buttons are used to search for customer information by card number or customer name. Once a card number or customer name is select the following customer history dialog box is displayed. This Card Data cannot be altered.



A dialog box titled "Customer Bar Code Data" with a blue header and a close button. It displays a message "Can Not Change Items In Customer Record" in red. Below the message is a "Close" button. The dialog shows customer information:

Bar Card #	Issued Date	Issue Location
800105	8/16/99	Hura

Customer Detail button

Type	Self serv	Auto matic	Birth day	Credit	Promo Wash
Frequent User	0	0	0	\$0.00	1

Prepaid Auto Washes: 0 Prepaid SS Washes: 0

First Name: Initial: Last Name: Address 1: Address 2: City: St: MI Zip: Birthdate: Senior: Last Wash Date:

Time Slips: The button is used to record the site manager's log in and log out time. Clicking the "Change Site Managers" button will allow additions or deletions of site managers. Using an optional off site interface program this data can be used for summary payroll data.

The screenshot shows a software window titled "Employee Data" with a close button in the top right corner. The main title of the window is "Employee Time Log". In the top right corner of the window, there are two buttons: "Change Site Managers" and "Close".

The form contains the following elements:

- Employee Name:** A dropdown menu with "Test Employee" selected.
- Date:** A text box containing "8/25/99".
- Log In Time:** A green button with a corresponding empty text box below it.
- Log Out Time:** A red button with a corresponding empty text box below it.
- Comments:** A large empty text area.
- Table:** A table with three columns: "Date", "Start Time", and "End Time". The table is currently empty.

Display Log: This is a log of all recorded card activity, uploads, downloads and error events for the barcard program.

Card #	Type	Time	Bay	Site Code	Information
Manula DownLoaded Data		6/1/2001 4:47:43 AM	1	0	Bar Card Records: 9788
Quick VB Restarted		6/1/2001 12:00:02 AM	1	0	
Quick VB Restarted		6/1/2001	1	0	
Midnight VB Shutdown		5/31/2001 11:59:46 PM	1	0	
Credit Cards Settled	CS	5/31/2001 9:34:25 PM	1	0	
Credit Cards Approved: 2	CA	5/31/2001 9:34:25 PM	1	0	
# Of CC Washes: 3	CC	5/31/2001 9:30:03 PM	1	0	
Auto DownLoaded Files		5/31/2001 9:30:02 PM	1	0	Bar Card Records: 9788
806449	F	5/31/2001 6:45:04 PM	E	1	0
807040	F	5/31/2001 5:41:59 PM	D	1	0
800090	M	5/31/2001 4:38:53 PM	i	1	0
800090	M	5/31/2001 4:36:13 PM	e	1	0
800090	M	5/31/2001 4:27:12 PM	d	1	0
800090	M	5/31/2001 4:00:10 PM	f	1	0
806747	M	5/31/2001 3:17:06 PM	d	1	0
806747	M	5/31/2001 2:49:43 PM	h	1	0
Quick VB Restarted		5/31/2001 2:40:54 PM	1	0	
800090	M	5/31/2001 2:30:55 PM	h	1	0

Type: F=Frequent User Wash MC=Credit Card BP=Birthday Promo
 PW=Promotion Wash P=Prepaid Credit PS=Prepaid Self Serve Wash
 PA=Prepaid Automatic Wash M=Manager Card C=Commercial

Shut Down: This button is used to shut down the barcard program and close the Barcard Interface program. This is the only way to close this program. Closing the Barcard program any other way may cause errors

Tools: This button opens up tools used for special functions in the Barcard program. Once clicked a request for a password is requested:

A small dialog box titled "Password" with a close button (X) in the top right corner. The main area contains the text "ENTER PASSWORD:" followed by a rectangular text input field.

Type in the password "password". This will expose the Tools buttons. The Password can be changed in the Site Criteria Form.



Button: Execute

Clicking this button starts the Control Interface if it is not running. You need to click on the Control Icon in the task bar to shut down the Control Interface. The Execute Button is used by the home office for testing.

Button: Don't Execute

Clicking this button stops the Control Interface from reloading itself if it is not functioning. You need to click on the Control Icon in the task bar to shut down the Control Interface. The Don't Execute button is used by the home office for testing.

Button: Download Data

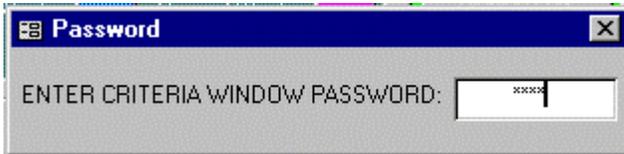
Clicking this button will download the most recent site data from the Barcard program, and get it ready for uploading to the office PC. This task is automatically scheduled in the Criteria Window.

Button: Reload BarCard Data

The home office uses this button, when we load revision to the Barcard program, or upload a new customer database.

Button: Site Criteria

Clicking this button opens up a password box. The password is "password", and will allow access to the site criteria window.



This is where you setup the Car Wash site-specific information.

Barcard

Site Criteria

Dual MMI Version #

Bay #	Bay Code	Active Bay	Credit Card	Reader Code
a1	A	<input checked="" type="checkbox"/>	<input type="checkbox"/>	001
a2	B	<input type="checkbox"/>	<input type="checkbox"/>	002
a3	C	<input type="checkbox"/>	<input type="checkbox"/>	003
1	D	<input checked="" type="checkbox"/>	<input type="checkbox"/>	004
2	E	<input type="checkbox"/>	<input type="checkbox"/>	005
3	F	<input type="checkbox"/>	<input type="checkbox"/>	006
4	G	<input type="checkbox"/>	<input type="checkbox"/>	007
5	H	<input type="checkbox"/>	<input type="checkbox"/>	008
6	I	<input type="checkbox"/>	<input type="checkbox"/>	009
7	J	<input type="checkbox"/>	<input type="checkbox"/>	010
8	K	<input type="checkbox"/>	<input type="checkbox"/>	011
9	L	<input type="checkbox"/>	<input type="checkbox"/>	012

You Will Need To Restart The Program After Changes!

Site Name: *

Car Wash ID:

Region ID:

Install Date:

Upload DB Name:

Help Desk Phone:

Download File Time:

Upload File Time:

Download DB Name:

Prefix Download Tabela:

Tools Password:

Criteria Form Password:

Card Hold Time Min.:

Free Wash Interval:

Last Barcard Update:

Last Record Count:

MMI Interface:

Control Interface Version:

Site Processing Type

Single Site

Multi Processing Site

Initial Promo Wash On 2nd Wash

Activate Birthday Option:

Activate Barcard Interface:

Automatic Wash Charges

Premium

Regular Plus

Regular

Economy

Self Serve Wash Charges

Credit/Pre Paid

Promotion

Credit Card Processing

Process Credit Cards Local

Process Credit Cards Remote

Last Credit Card Update:

Putting a check in the Active Bay column will turn on the barcard reading functions.

Putting a check in the Credit Card column will turn on the Credit Card reading functions.

In the Reader Code column is addresses for the barcard readers set by Hydro-Spray.

Bay Numbers a1 through a3 are for automatic car washes, and 1 through 9 are for self serve washes.

Putting a check in the Credit Card column turns on that bay to accept credit cards after Hydro-Spray has initiated the credit card option.

Site Name: This is the name of the Car Wash site.

*Car Wash ID: This will be a number assigned Hydro-Spray.

*Region Wash ID: This will be a number assigned by Hydro-Spray.

*Installed Date: Date the Barcard software installed on the computer hard drive.

*Upload DB Name: This is not applicable for single site operations.

* Set by Hydro-Spray

Help Desk Phone: This is the Precision Auto Wash home office phone number.

Download File Time: This is the time that copies of your data are stored into a separate directory on the computer.

Upload File Time: This will be active if the owner has the offsite Card Editing Program, otherwise it is not applicable for single site operations.

*Download DB Name: File name where daily downloaded is stored.

*Prefix Download Tables: Unique identifier for down loaded tables

Tools Password: This is the place where you can type in a unique password of the Tools button on the main form.

Criteria Form Password: This is the place where you can type in a unique password of the Site Criteria button on the main form.

Card Hold Time Min: Setting this determines how much time the system allows between the customer's card swipe and the insertion of coins.

Free Wash Interval: The number of washes it takes before the customer gets a free wash.

Last Barcard Update: The last date the bar card data was updated.

Last Record Count: Number of records updated.

*MMI Interface: Selection of MMI Interface programs. Either Factory Link or Citect

*Control Interface Version: Version of Factory Link of Citect that is running.

*Site Processing Type: Select if site is a stand-alone site, or data will be merged with other sites.

Initial Promo Wash On 2nd Wash: If promotion washes (free wash) are loaded for new cards, promotion will be given on the card user's second wash. Otherwise the promotion wash will be given on the first wash.

Activate Birthday Option: Single Site only. This option will add a promotion wash for card users that have their birthday entered into their card data.

Activate Barcard Interface: Checking this box turns on all the barcard reading functions.

Automatic Wash Charges: If the owner has an auto cashier for the automatics and the wash selection buttons are programmed into the Citect MMI; enter separate prices for each of the four button selected washes. Otherwise enter the same price in each of the Automatic Wash Charges

Self Serve Wash Charges: This is the dollar amount used to deduct form a prepaid customer or charged to a credit card each time they use the self serve car wash.

Last Credit Card Update: If Hydro-Spray installs the credit card option, this date is the last date that credit cards have been processed for approval and settlement.

* Set by Hydro-Spray



Review Credit Card Transactions Button: If the credit card option is installed, clicking on the button will give you the option to review the latest credit card activity. These Results are displayed using Microsoft's Notepad program.

Review Credit Cards Submitted: List the credit cards submitted to the Authorizer Program for approval & settlement.

Review Credit Card Approval: Lists the credit cards approved by the Authorizer Program

Review Authorizing Results: Summary results of the approval results

Review Settlement Results: Lists the credit cards settlement results.

List Invalid Credit Cards: List all credit cards that the Authorizer Program could not settle. You can delete individual Invalid Credit Cards from this Form, so they will not be rejected again.

Start Authorizer Program: Starts the Authorizer Program, see documentation from Atomic Software for more detail.

Button: Single User Functions

This button appears if the site is designated as a stand-alone site. Clicking pops up the Single User Function screen.



Clicking of the Function Button produces a list of functions that can be performed:

Generate Birthday Mailing List: Generates a file of customers with birthdays between the selected dates, the file can be downloaded to a floppy disk on drive A, or is stored on the hard drive as: C:\Barcard\BirthdayLabels.txt

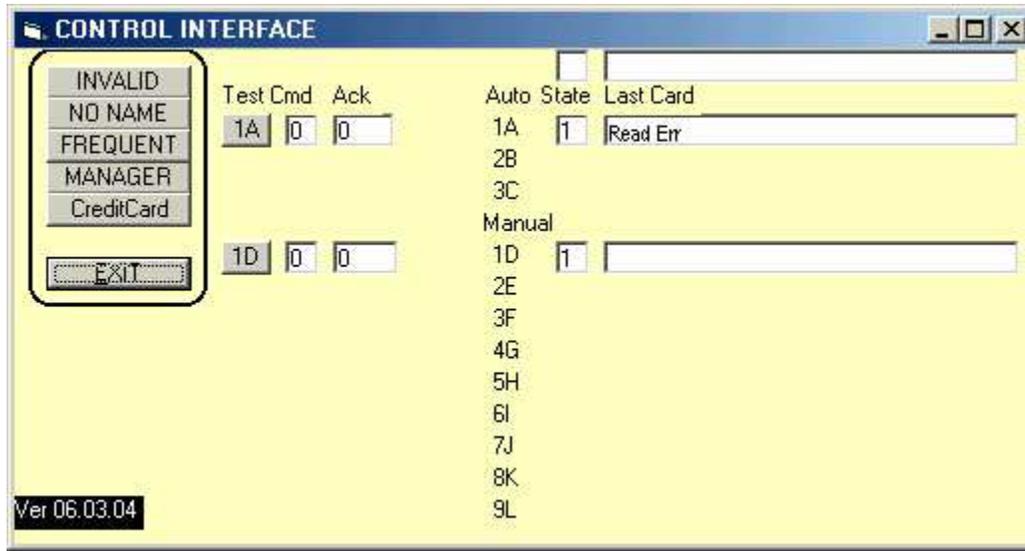
Generate Mailing Label List: Generates a file of customers address, the file can be downloaded to a floppy disk on drive A, or is stored on the hard drive as: C:\Barcard\MailingLabels.txt.

Issue Barcards To Customers: This is where you enter data for individual customer records.

Add Barcard Numbers: Used for loading addition barcard numbers, must be between the Assigned Barcard Number Range shown at the top of the form.

Add Invalid Credit Cards: This is where invalid credit cards are entered. During the authorizing & settlement process, the program will add any invalid credit cards it tries to process.

Control Interface



The Control Interface visually shows the information being read from the card readers, and can be used for testing the system from the Barcard Program through the Factory Link/Citect MMI program. Selecting one of the buttons on the left hand side, and then clicking on a bay Test button will simulate a swiped card. Before you can use the test buttons, you must first click on the MANAGER button and enter the password “1984”. See “Control Interface Codes” for Cmd, Ack & State codes.

Programming Barcard Readers

Bar/Credit card readers come from the factory pre programmed with all the functionality necessary to work with the program with the exception of the car wash bay code address (Factory set to 000). Using the Reader Address program will program individual reader bay addresses, or all reader bay address at one time. The Reader Address program will also indicate readers that are not functioning properly by displaying an Err coed.

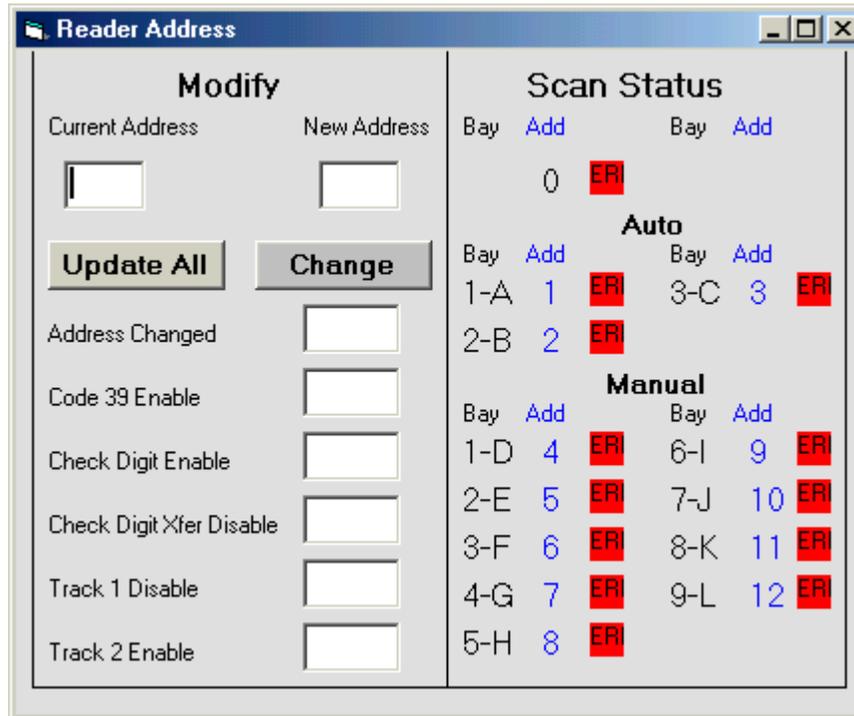
To change a new individual Bar/Credit card reader bay code address, type 000 in the Current Address box and the bay code in the New Address box; then click the Change button. The bay New Address is a three-digit number. The New Address is the Add number next to the Bay, indicated in the Reader Address program, preceded by enough zeros to equal three digits. Examples:

- | | | | |
|---------------------------------|----------------------------|------------------------|--------------------------------|
| 1st automatic bay: | Current Address <u>000</u> | New Address <u>001</u> | Click the <u>Change</u> Button |
| 2 nd automatic bay: | Current Address <u>000</u> | New Address <u>002</u> | Click the <u>Change</u> Button |
| 1st self serve bay: | Current Address <u>000</u> | New Address <u>004</u> | Click the <u>Change</u> Button |
| 2 nd self serve bay: | Current Address <u>000</u> | New Address <u>005</u> | Click the <u>Change</u> Button |
| 3 rd self serve bay: | Current Address <u>000</u> | New Address <u>006</u> | Click the <u>Change</u> Button |
| 8th self serve bay: | Current Address <u>000</u> | New Address <u>011</u> | Click the <u>Change</u> Button |

Clicking the Update All button will program each installed Bar/Credit card reader to the correct bay address number, and will also indicate an Err code if the installed Bar/Credit card reader is not functioning properly.

Bays 1-A through 3-C are for automatic bays, and bays 1-D through 9-L are for self serve bays

You can access this program by double clicking on the folder called Barcard Tools located on the desktop, and then double click on the icon called Reader Maintenance.



Display Log Abbreviations

PW – Promotional Wash
P – Prepaid Wash
MC – Credit Card
PA – Purchased Wash Automatic
PS – Purchased Wash Self- Serve
F- Frequent Washer Card
M – Manager Card
BP – Birthday Wash
C – Commercial

Control Interface Codes

Control Interface to MMI Command Translation

From Bar Card To MMI	“0” Cmd = 1	‘Card not valid’
From Bar Card To MMI	“1” Cmd = 2	‘Start Free Wash’
From Bar Card To MMI	“2” Cmd = 3	‘Frequent Wash insert money’
From Bar Card To MMI	“3” Cmd = 2	‘Start Wash’
From Bar Card To MMI	“4” Cmd = 4	‘Insufficient Credit’
From Bar Card To MMI	“6” Cmd = 6	‘Prepaid Wash’
From Bar Card To MMI	“7” Cmd = 7	‘Credit Card’
From Bar Card To MMI	“8” Cmd = 8	‘Birthday Wash’
From Bar Card To MMI	“9” Cmd = 9	‘Call for Free Wash’

Acknowledge from MMI

1 = Wash Started
2 = Command Acknowledged

Price Code

0 = Wash loaded after initiated
1 = High Price Wash
2 = Med High Price Wash
3 = Med Low Price Wash
4 = Low Price Wash

Credit Card Information Sheet

In order to setup the credit card functions for the Car Wash programs, several steps need to be taken to get credit card swipes deposited in your bank account.

Hydro-Spray has integrated "Authorizer Credit Card" software in to the Car Wash program. We will need the following information from you, or we will assist you in getting set up with a credit card Merchant Provider.

Please Contact HydroSpray for approved Credit Card Merchant Providers.

Car Wash Information

Contact Person: _____ Contact Phone #: _____

Contact Company: _____ Computer Phone #: _____

Contact Address: _____ Contact City, State, Zip: _____

Credit Card Processor Information

Terminal ID #: _____

Merchant Name: _____

Merchant # _____

Merchant City: _____

Merchant State: _____

Acquirer Bin #: _____

Agent # _____

Chain # _____

Store #: _____

Terminal #: _____

Merchant Category Code # / SIC Code: _____

Merchant Zip: _____

Country Code: _____

Time Zone: _____

Merchant Location # _____

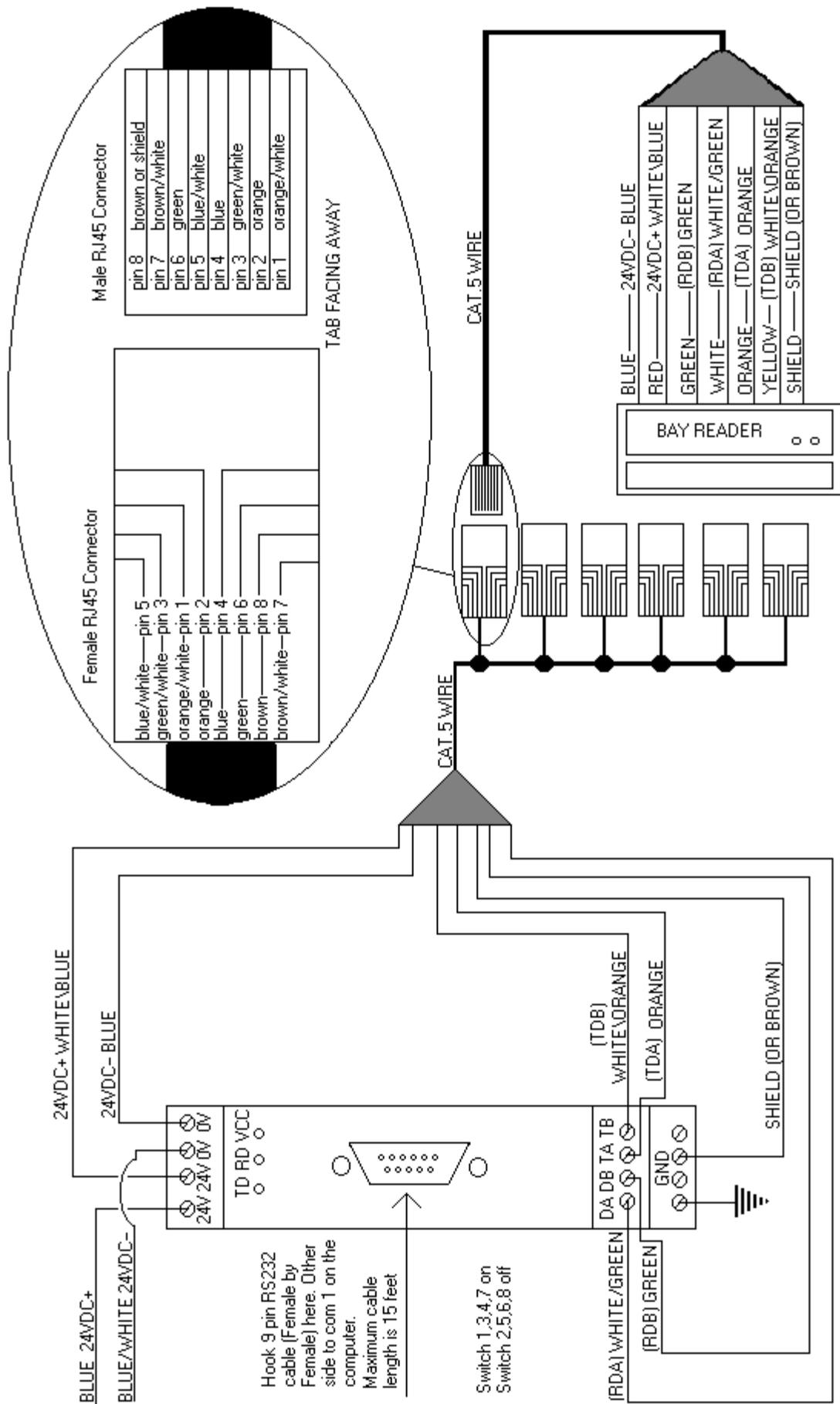
Authorization

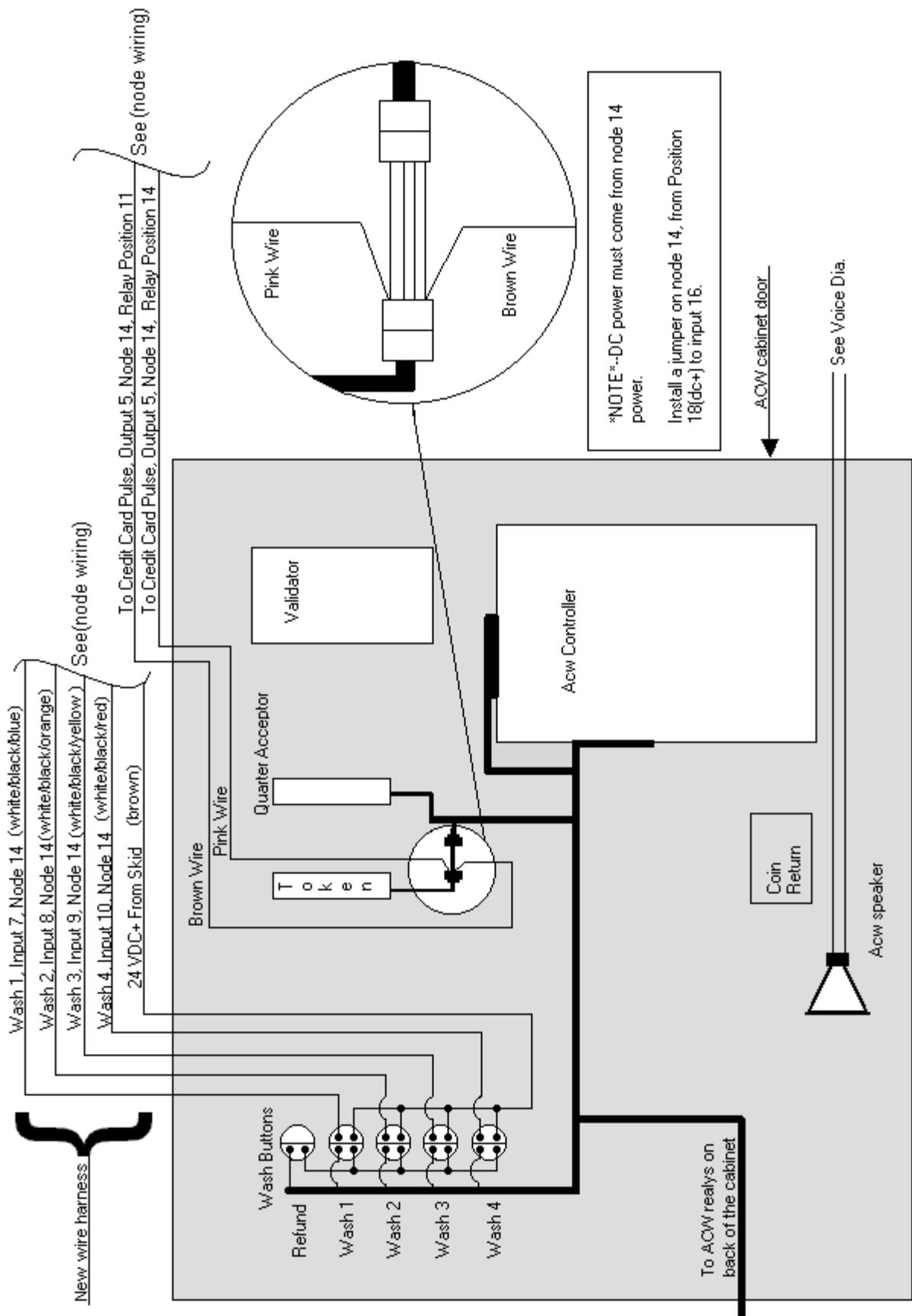
Primary Phone # _____ Secondary Phone # _____

Settlement

Primary Phone # _____ Secondary Phone # _____

Din-rail Phoenix Card System Wiring





Acw Marketing System Wiring