

# **Hamilton Manufacturing Corporation**

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## **HCS IV Programming Manual v3.10 or Higher**

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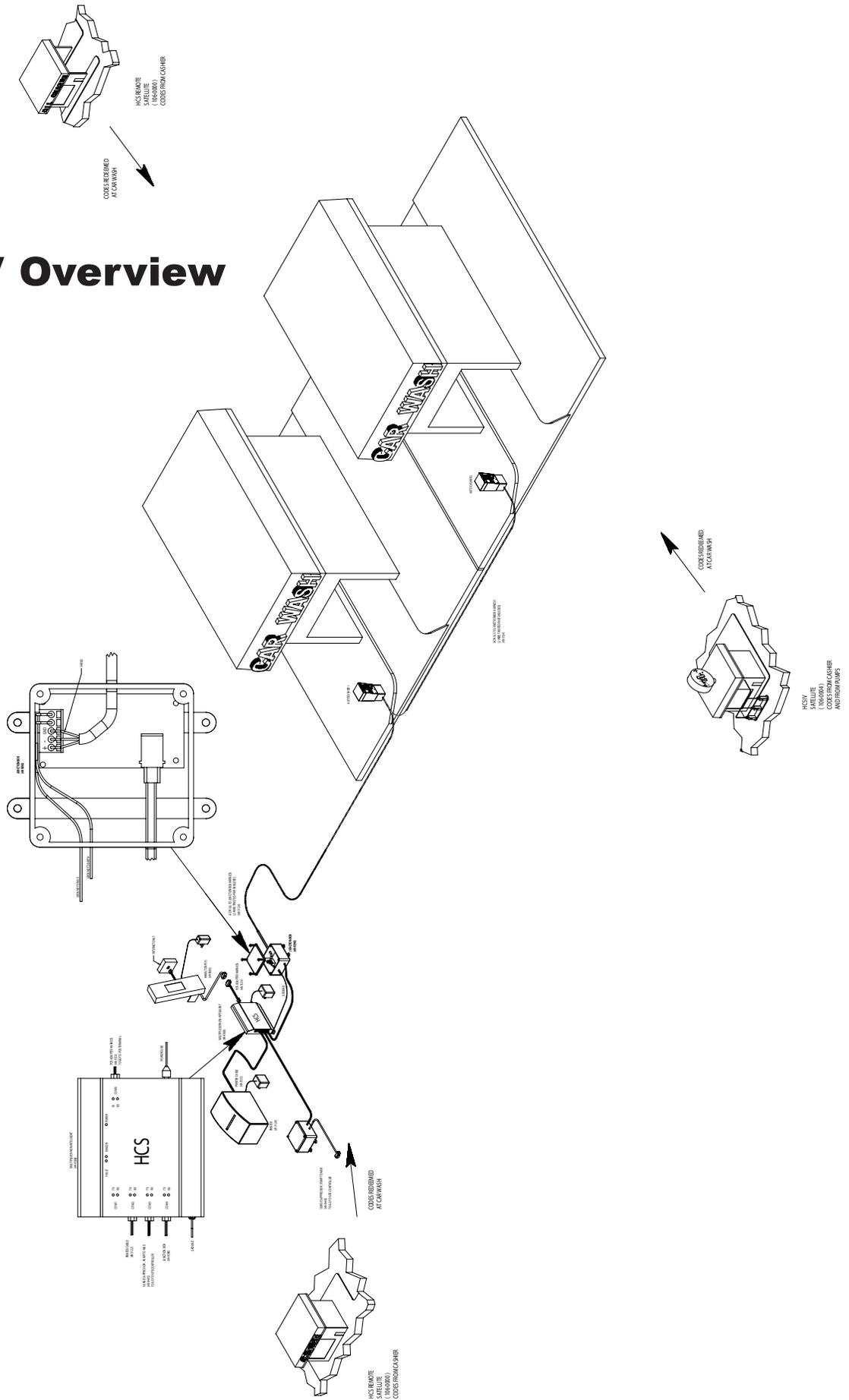
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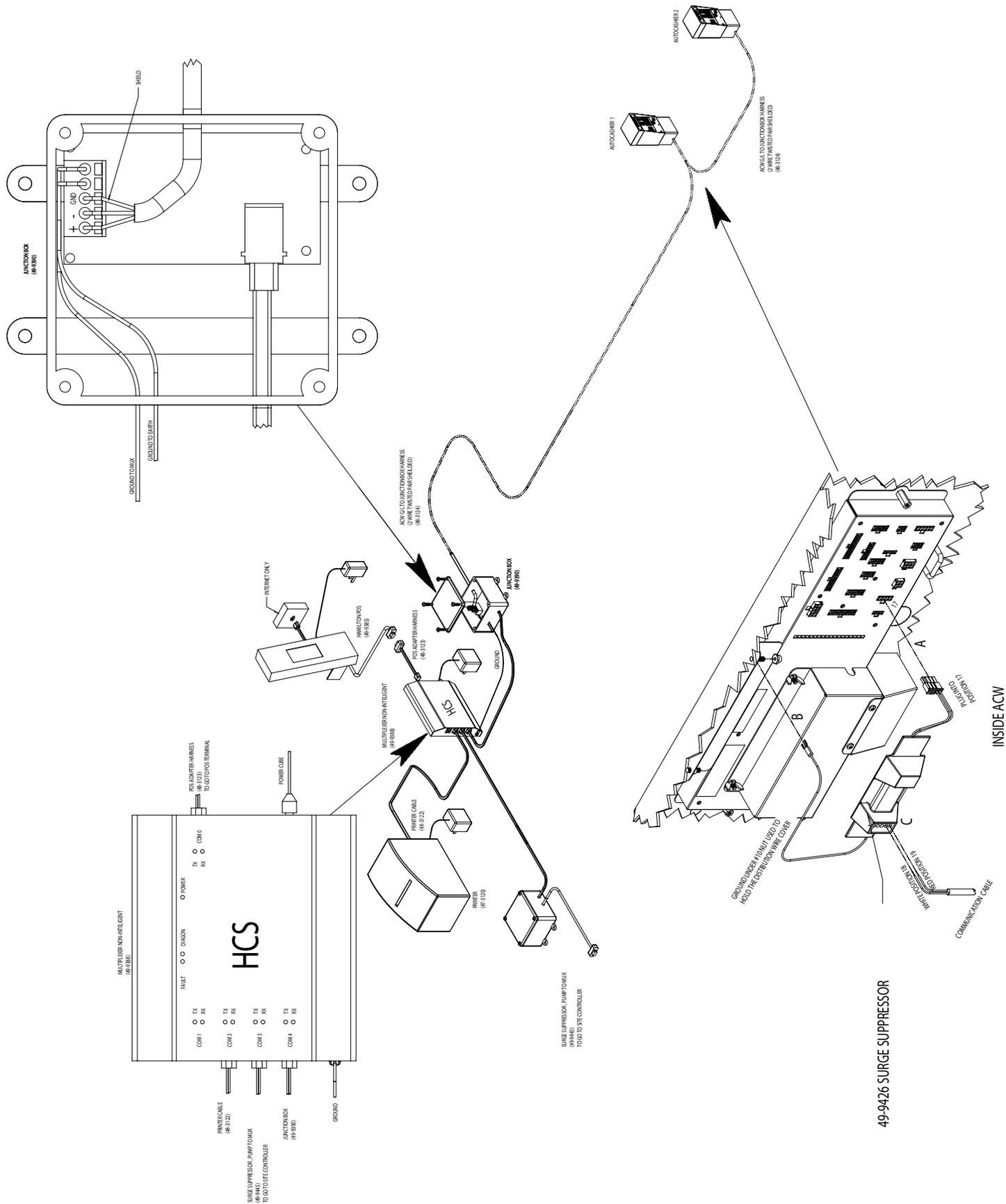
## **PREFACE**

This manual is designed to guide you through the programming of your HCS IV POS unit. Each menu screen is represented as a separate page. For further information, please contact Hamilton's Technical Support Department at (800) 837-5561.

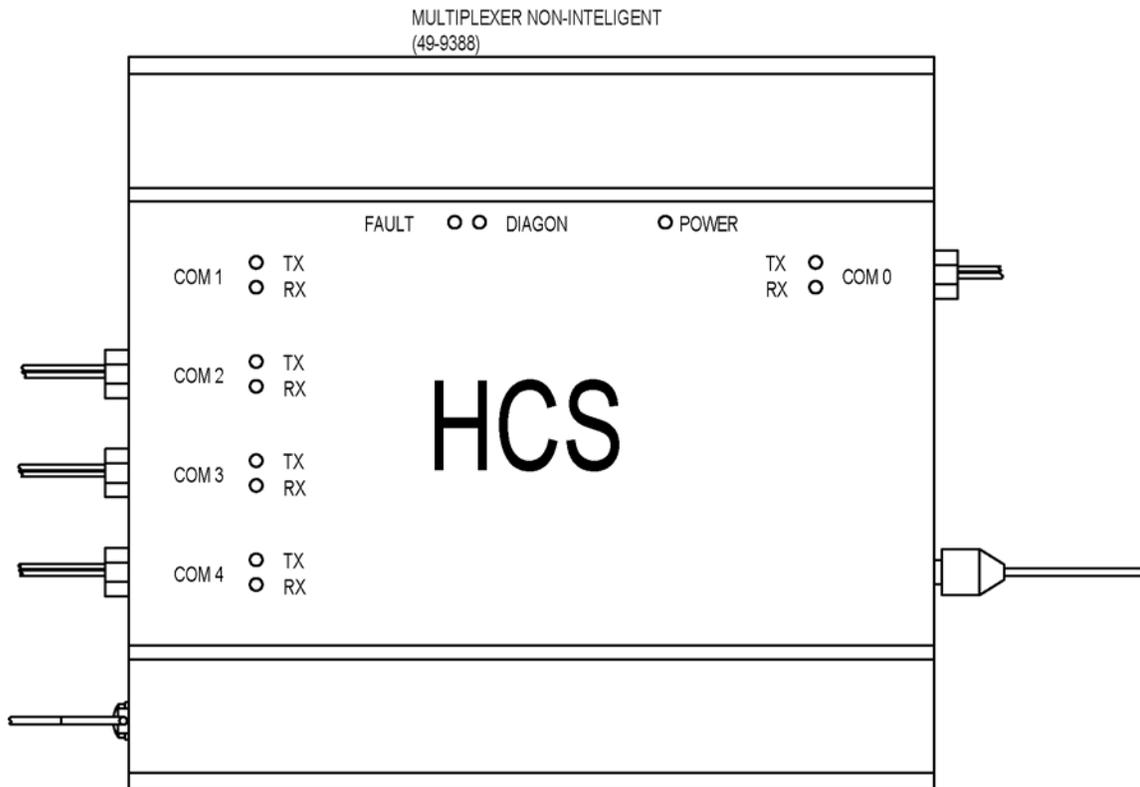
# HCS IV Overview



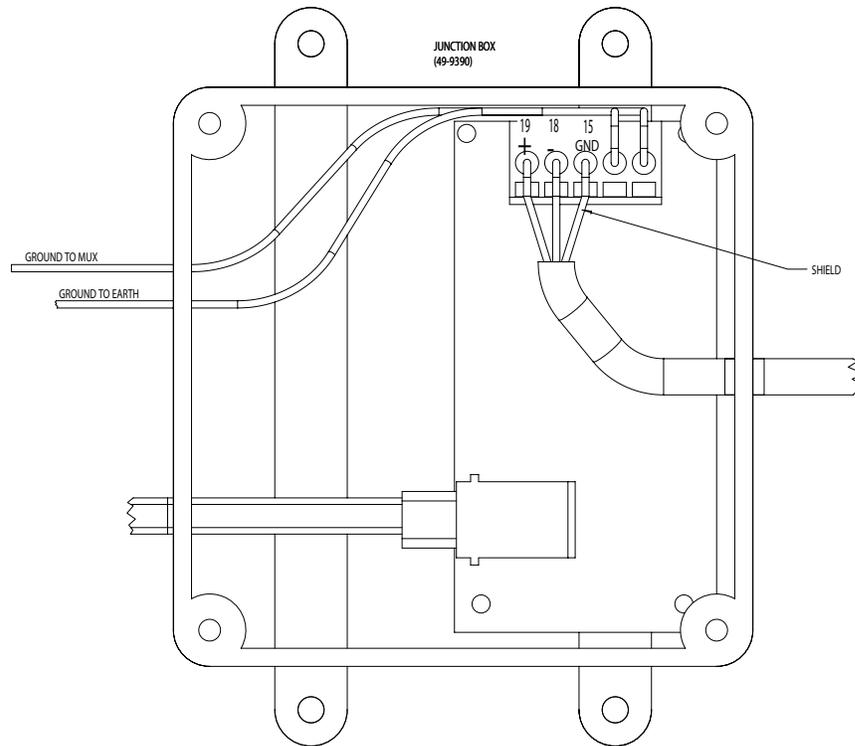
# HCS IV Wiring Schematic



# Multiplexer

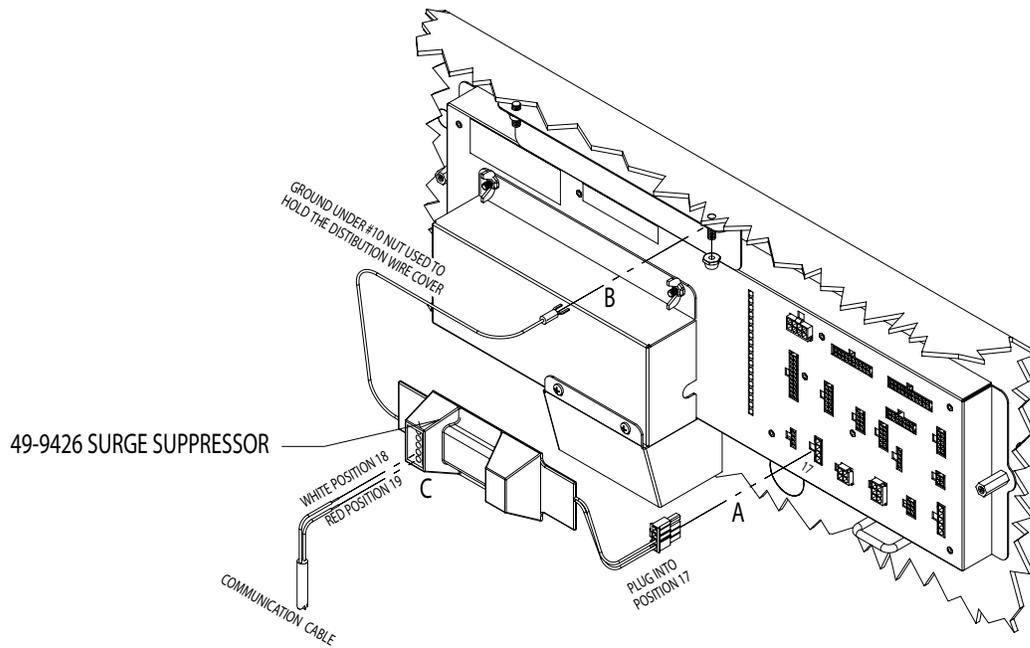


- The PDA will always be plugged into COM 0.
- COM 1-3 can be changed in the PDA.
- Wash Interface will always be plugged into COM 4.
- COM 1-3 are RS 232 ports and COM 4 is a 485 port.
- **DO NOT** plug the black Internet cable coming from the PDA into any of the COM ports.



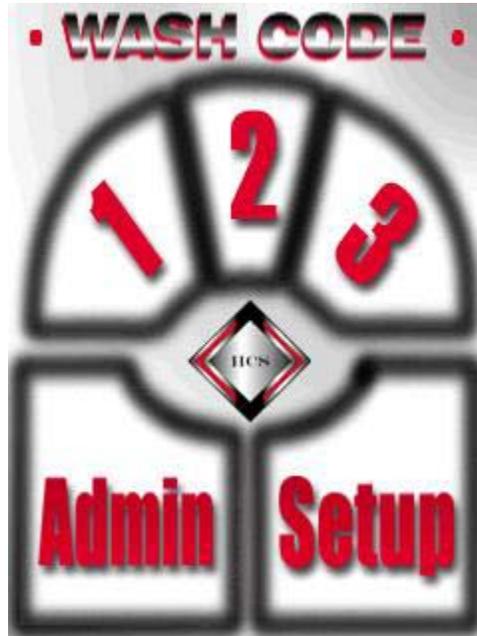
- Wash Interface: The communication line between the GL-ACW and the Wash Interface Box (Grey Box) is a two wire twisted pair shielded cable (White and Red).
- Connect the red wire to the positive “+” side (#19) in the wash interface box and it MUST match up to #19 on the surge suppressor. The white wire will connect to the negative “-” side (#18) in the wash interface box and it MUST match up to #18 on the surge suppressor. The shield must connect into #15 or GND in the wash interface box.
- The first Interface box only had one ground wire coming out of it. That ground wire should be attached to the Multiplexer. The second Interface box (shown above) has two grounds coming off the box, one is for the Multiplexer (chassis ground) and the second is for earth ground.

# Distribution Panel

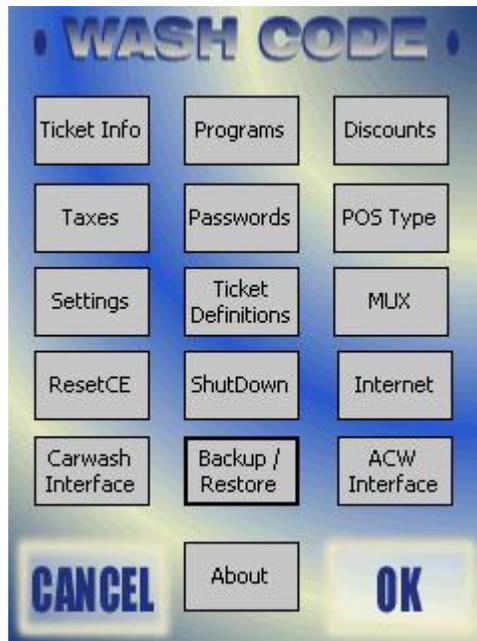


- The four pin connector plugs into #17 on the distribution panel. The ground wire attaches to the distribution wire cover.
- Connect the red wire to position #19 on the surge suppressor and it **MUST** match up to the positive “+” side (#19) in the wash interface box. The white wire will connect to #18 on the surge suppressor and it **MUST** match up to the negative “-” side (#18) in the wash interface box.
- The shield will **NOT BE** connected into the surge suppressor, it will be left disconnected. If you are daisy chaining two or more ACW’s together you will then just twist the shielded cables together and at the last ACW it will be left disconnected.

# WASH CODE



# SETUP



# Ticket Information

**Ticket Info** 9:15a 

Valid Days:

Address:

Telephone:

Footer:

Include barcode on printout?

Printout language

English  French  Spanish



- VALID DAYS is the amount of time an issued code is valid. The customer can set this field to their desired specifications.
- The address that is displayed in the boxes above will be displayed on the ticket given to the customer.
- The box entitled “Include barcode on printout” does not need to be selected unless it pertains to their setup.
- PRINTOUT LANGUAGE allows you to select the English or French language to be printed on the ticket.

# Keyboard

**Ticket Info** 1:25p 

Valid Days:

Address:

Telephone:

Footer:

Include barcode

123	1	2	3	4	5	6	7	8	9	0	-	=	←
Tab	q	w	e	r	t	y	u	i	o	p	[	]	
CAP	a	s	d	f	g	h	j	k	l	;	'		
Shift	z	x	c	v	b	n	m	,	.	/	↵		
Ctl	á	ü	`	\						↓	↑	←	→



- In the bottom right hand corner of the screen, there is a symbol of a keyboard. Selecting it will bring up a keyboard that will allow you to input the above information.

# SETUP

## Program Pricing

Program Pricing 9:16a ok

1	Wash 1	\$ :	5
2	Wash 2	\$ :	6
3	Wash 3	\$ :	7
4	Wash 4	\$ :	8
5		\$ :	0
6		\$ :	0

Standard Pricing  1-6  7-12

Fleet Pricing

A  B  C

High  Low High/Low Time

Enable Euro Symbol Hamilton \$

- By selecting the keyboard at the bottom of the screen you can input your wash names and wash prices.
- Next section is FLEET PRICING. This allows you to set different price groups (A, B or C) for your fleet codes. You may also use “Standard Pricing” for your fleet pricing.
- HIGH/LOW TIMES allows you to set two different price settings for each fleet group—a high and a low price. You will then be able to set the times that high or low pricing should be used, as well as being able to set when a code is not usable.
- The ENABLE EURO SYMBOL only changes the “\$” sign to the European sign for money.

# Hamilton \$

Hamilton Pricing 9:48a ok

1: \$:

2: \$:

3: \$:

4: \$:

Teller ID:  Find Tellers

Get Prices Set Prices

- FIND TELLERS allows you to find all of your Hamilton Gold Line ACW's (Teller ID=ACW Unit Number).
- GET PRICES allows you to pull the prices and names from each of the Hamilton ACW's.
- You can change the prices from this screen but not the wash names.
- After changing the prices you can "Set Prices" back to the ACW. This is done one at a time!

# SETUP

## Discounts

Discounts 9:16a 

Discount 1:

Discount 2:

Button 1:

Button 2:

Button 3:

Button 4:

Entering a discount value of 999 will force a free wash. Discount 1 is for Button1, Discount 2 is for Button 3.

- The value set in DISCOUNTS is the amount of discount off of a wash price.
- A value of 999 must be set to force a free wash. If another value is in DISCOUNT 2 then that will be the amount discounted on the washes you have set for DISCOUNT 2.
- Button 1-4 will be displayed on your sales window and the text that you input will be displayed in the box. You can input your own text by going to the bottom of the screen and selecting the keyboard symbol and input the text. If you do not input the text into a box you will have a blank box on your sales screen.
- DISCOUNT 1 is for Button #1 and DISCOUNT 2 is for Button #3.

# SETUP Taxes

Taxes 9:16a

Tax1:  Rate:

#:

Tax2:  Rate:

#:

Compound Taxes?

- Taxes are only applicable to the car wash owner.
- Tax rates are set up in the cash register if you have a Pay-at-the-Pump situation.

# SETUP

## Password

Passwords 9:17a ok

Passwords

Shift1:	<input type="text" value="0"/>	Shift3:	<input type="text" value="0"/>
Shift2:	<input type="text" value="0"/>	Manager:	<input type="text" value="0"/>
		Installer:	<input type="text" value="0"/>

Keyboard icon | ▲

- It is **VERY IMPORTANT** that if passwords are set that the appropriate personnel are aware of the codes and where to find them if they are forgotten.
- If a password is not selected then the default password is “0”.
- To input a numerical password select the keyboard symbol at the bottom of the screen.

# SETUP

## Configure POS Type

- If this is the Master unit (connected to Gold Line ACW's) and there are no remote or Pay-at-the-Pump satellites, then your screen should look as displayed above.
- MAX SATELLITES is the number of satellites that the master will verify.
- MAX PROGS is the number of washes allowed.
- MAX CODES is the amount of codes allowed per day. (This will automatically be calculated when MAX SATELLITES and MAX PROGS have a numerical input.)
- NETWORK MASK is a numerical code that links the Master and satellites together. \*This code should be a unique five or six digit number.\*

NOTE: The largest network number that can be inputted is 524287.

- MAX WINDOW is the number of codes valid past the last code that was used.
- When setting up remote or Pay-at-the-Pump satellite with a Master, the information in the following categories must be the same; MAX SATELLITES, MAX PROGS, MAX CODES, and NETWORK MASK.

# Config for Standard Remote

**Config POS Type** 1:05p

Satellite Code Length  
 5 Digits  6 Digits  7 Digits

Max Satellites:

Max Progs:

Max Codes:

Network Mask:

Max Window:

Satellite 1  Satellite 6  
 Satellite 2  Satellite 7  
 Satellite 3  Satellite 8  
 Satellite 4  Satellite 9  
 Satellite 5  Satellite 10

- If you are using a “Standard Remote,” then select the “7” digit satellite code length and input the numerical values for your setup. (Make sure you have also selected a satellite.)
- By adding more Max Satellites it changes the number of Max Codes allowed per day.
- You are allowed up to 10 Standard 7 digit remotes.
- Note: If you are using a Standard Remote 7 digit satellite code length then your Local code size (see settingspage) can be either 5 or 6 digit.

# Config for Pay-at-the-Pump

The screenshot shows a configuration window titled "Config POS Type" with a blue header bar. The time "1:09p" and an "ok" button are in the top right. Below the header, there are several settings:

- Satellite Code Length:** Three radio buttons are present: "5 Digits" (unselected), "6 Digits" (selected), and "7 Digits" (unselected).
- Max Satellites:** A text box containing the number "4".
- Max Progs:** A text box containing the number "4".
- Max Codes:** A text box containing the number "207".
- Network Mask:** A text box containing the number "11803".
- Max Window:** A text box containing the number "20".
- Satellite Selection:** Four checkboxes labeled "Satellite 1" through "Satellite 4". "Satellite 1" is checked, while the others are unchecked.

On the right side of the form, there are two grey buttons: "Reset Satellite" and "Master Address". At the bottom of the window, there is a grey bar with a keyboard icon and a small upward-pointing arrow.

- If you are using a “Pay-at-the-Pump Remote” then select “5” or “6” digit satellite code length and input the numerical values for your setup. (Make sure you have selected a satellite.)
- By adding more Max Satellites it changes the number of Max Codes allowed per day.
- You are allowed up to 4 Pay-at-the-Pump remotes for either a 5 or 6 digits..
- NOTE: It is suggested that you set the Max Satellites to four and then only check the Satellites that are used. This will make it easier to add new Satellites without deleting valid codes.
- Note: If you are using a PAP remote 5 digit satellite code length then your Local code size (see settings page) must be set to 5 digit.
- Note: If you are using a PAP remote 6 digit code length then your Local code size ( see settings page) must be set to 6 digit.
- Note: The length of the PAP remote satellite code length and Local code size will be determined by the site controller used with PAP system.

# SETUP

## Settings

The screenshot shows a settings menu with a blue header bar containing the text "Settings" and "11:46a" with an "ok" button. Below the header, there are several settings:

- Local Code Size:** A group box containing two radio buttons, "5" (selected) and "6".
- Drive-Off:** A text input field containing the value "1200".
- Goodwash:** A text input field containing the value "50".
- Fleet Sales:** A checked checkbox.
- Allow Stacking:** A checked checkbox.
- Allow CE Wash Start:** An unchecked checkbox, followed by a text input field containing "1" and the label "Cars".
- Enable Auto Start:** An unchecked checkbox.
- Report slave sales per shift:** An unchecked checkbox, followed by a button labeled "Clear Report #".
- Report PAP sales per shift:** An unchecked checkbox, followed by a button labeled "Shuffle".
- Use Emergency Codes:** An unchecked checkbox.
- Show wash bay status on sales screen:** An unchecked checkbox.

At the bottom of the screen, there is a grey bar with a keyboard icon and an upward-pointing arrow.

- Local Code Size allows you to set the length of code that will be issued at the Master site.
- FLEET SALES should be selected if you are going to allow fleet sales.
- ALLOW STACKING should be selected if you are going to allow stacking.
- DRIVE-OFF and GOOD WASH are used for Hamilton Code System II.
- The other categories that are not selected should only be selected if it pertains to their wash setup.

# SETUP

## Ticket Definitions

Ticket Definitions 9:19a 

	1	2	3	4	
Wash 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/> 1-4
Wash 2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/> 5-8
Wash 3	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/> 9-12
Wash 4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
No Discount:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

- This assigns the text (Wash Name) to the Wash Package.
- NO DISCOUNT allows you to select a wash package and NOT give a discount for that wash package.

# SETUP

## Configure MUX

Config MUX 11:10a ok

1 2 3

Device Type:

Not Used       PAP Standard  
 CS Client       PAP Bulloch  
 Printer       PAP Generic  
                     PAP Unicam

Enable MUX      Set Data Parameters  
 Enable Hamilton  
 Log Standard PAP  
 Only Exceptions?

- This screen allows you to select the device you want going to the COM port on the Multiplexer.
- COM Port “0” is always for the PDA and COM Port “4” is always for the Interface box.
- 1-2-3 signifies the COM port on the MUX. You can have only one device for each COM port.
- The ENABLE MUX and ENABLE HAMILTON **must be selected** for the Wash Code System and GL-ACW to work together.
- Your device types must match the selections you have made on your MUX.

# Set Data Parameters

Config MUX parameters 9:20a ok

1 2 3 4

Data Parameters:

Baud 19200

Parity  None  Even  Odd

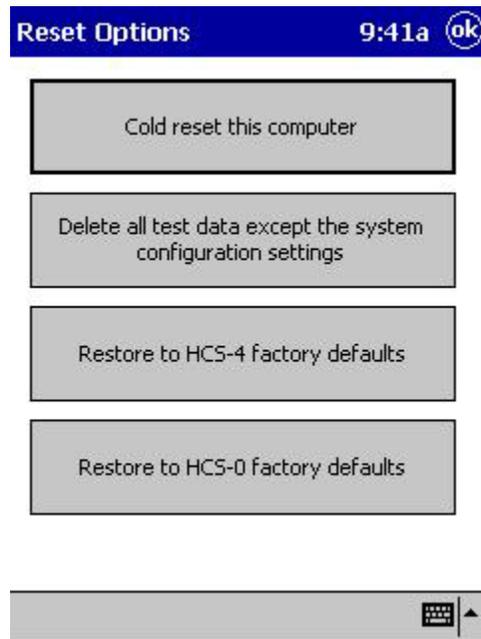
Data size:  5  6  7  8

Write settings to MUX

- This screen allows you to set the Baud Rate, Parity and the Data Size.
- PARITY and DATA SIZE should not be changed. You may, however, change the Printer BAUD rate dependant on the individual system settings.
- If a change is made then select “Write settings to Mux” to change the setting in the Mux.

# SETUP

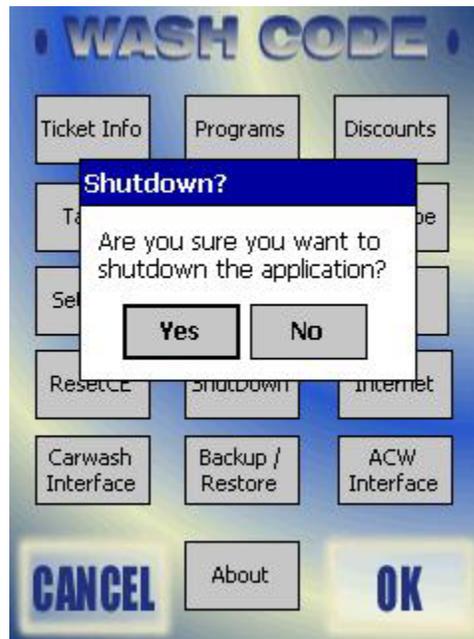
## Reset CE



- COLD RESET THIS COMPUTER allows you to re-initialize the CE (PDA).
- DELETE ALL TEST DATA EXCEPT THE SYSTEM CONFIGURATION SETTINGS allows you to delete test data and save all system configuration settings.
- RESTORE TO HCS-4 FACTORY DEFAULTS allows you to restore your Wash Code program back to a factory master system.
- RESTORE TO HCS-0 FACTORY DEFAULTS allows you to restore your Wash Code program back to a factory Satellite/Pay-at-the-Pump/Remote system.

# SETUP

## Shutdown



- This allows you to shut down the Wash Code Program.

# SETUP

## Internet Configuration

Internet Config 9:42a ok

SMTP:

FTP:

User:  Pass:

Site Email Address:

Email Backups

To:

Enable Internet Site ID:

Enable LAN

OffHours

Enable FTP In

Enable FTP Out

Email Config

- This allows you to set up an Internet connection.

# SETUP

## Carwash Interface

Carwash Interface
9:42a

Prog. ->	1	2	3	4	
Relay 1:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Relay 2:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Relay 3:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Relay 4:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Relay 5:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Relay 6:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

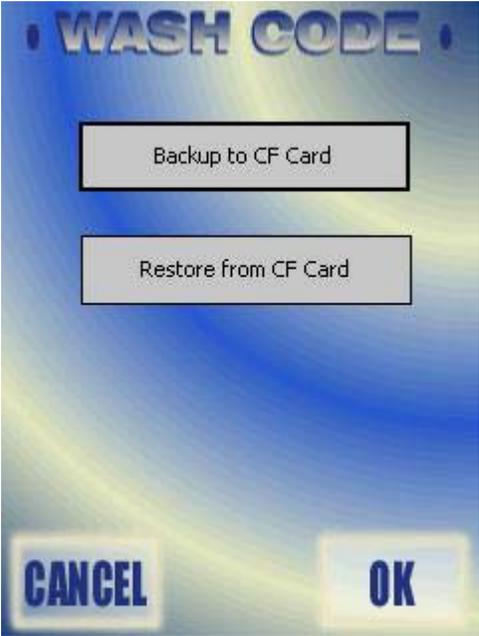
1 Shot Time

1-4   
  5-8   
  9-12

- PROG. (Program) associates to the wash package and RELAY X associates to the relay that will be fired by that wash package. Example: Wash #1 will fire Relay #1.
- 1 SHOT TIME is to be selected for the relay firing sequence. 20 equals 2 seconds.
- 1-4 is selected to match the Wash packages.
- CONFIG CAR WASH INTERFACE (CWI) is only used for Hamilton Code System II.

# SETUP

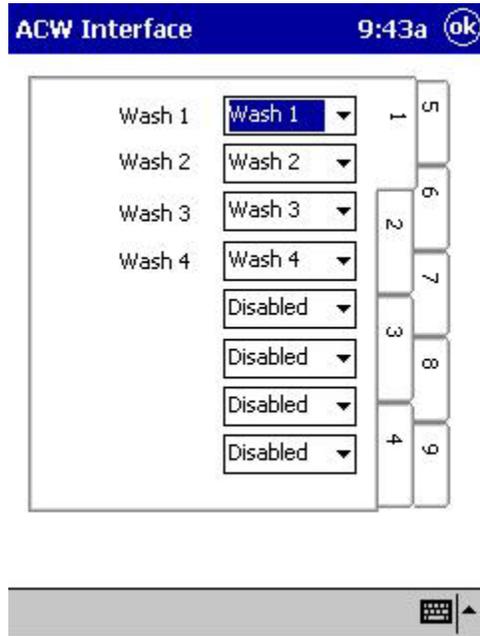
## Backup/Restore



- This screen allows you to backup or restore information from a CF Flash card.

# SETUP

## ACW Interface



- This allows you to map your Wash Names (text) to the wash package it will fire. You can link up to nine GL-ACW's on one Hamilton Code System IV.

# SETUP

## About

About

10:15a 

Copyright (C) 2002  
Hamilton Manufacturing

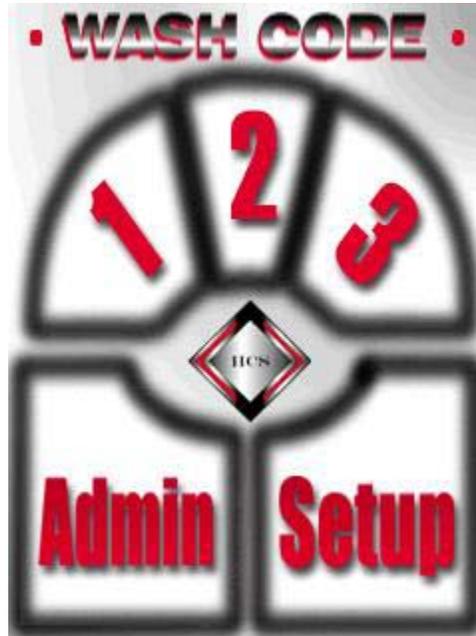
HCS-4  
Version 4.01

Warning: This computer program is protected by copyright law and international treaties. Unauthorized reproduction or distribution of the program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law.



- This will give you the version of the Wash Code program installed.
- This will also state a warning of copyright laws and international treaties.

# WASH CODE



# ADMIN



# ADMIN

## Ticket Info

Ticket Info		9:15a 
Valid Days:	<input type="text" value="3"/>	
Address:	<input type="text" value="Hamilton Mfg."/>	
	<input type="text" value="1026 Hamilton Drive"/>	
	<input type="text" value="Holland, Ohio"/>	
	<input type="text" value="43528"/>	
Telephone:	<input type="text" value="419-867-4858"/>	
Footer:	<input type="text"/>	
<input type="checkbox"/> Include barcode on printout?		
Printout language		
<input checked="" type="radio"/> English <input type="radio"/> French <input type="radio"/> Spanish		

- VALID DAYS is the amount of time a code that is issued is valid. The customer can set this field to their desired specifications.
- The address that is displayed in the boxes above will be displayed on the ticket given to the customer.
- The box entitled “Include barcode on printout” does not need to be selected unless it pertains to their setup.
- PRINTOUT LANGUAGE allows you to select the English or French language to be printed on the ticket.

# Keyboard

**Ticket Info** 1:25p 

Valid Days:

Address:

Telephone:

Footer:

Include barcode

123	1	2	3	4	5	6	7	8	9	0	-	=	←
Tab	q	w	e	r	t	y	u	i	o	p	[	]	
CAP	a	s	d	f	g	h	j	k	l	;	'		
Shift	z	x	c	v	b	n	m	,	.	/		↵	
Ctl	áü	`	\						↓	↑	←	→	

- In the bottom right hand corner of the screen, there is a symbol of a keyboard. Selecting it will bring up a keyboard that will allow you to input the above information.

# Program Pricing

Program Pricing 9:47a

1	Wash 1	\$ :	5
2	Wash 2	\$ :	6
3	Wash 3	\$ :	7
4	Wash 4	\$ :	8
5		\$ :	0
6		\$ :	0

Standard Pricing  1-6  7-12

Fleet Pricing

A  B  C

High  Low

Enable Euro Symbol

- By selecting the keyboard at the bottom of the screen, you can input your wash names and wash prices.
- Next section is FLEET PRICING. This allows you to set different price groups (A, B or C) for your fleet codes. You may also use “Standard Pricing” for your fleet pricing.
- HIGH/LOW TIMES allows you to set two different price settings for each fleet group—a high and a low price. You will then be able to set the times that high or low pricing should be used, as well as being able to set when a code is not usable.
- The ENABLE EURO SYMBOL only changes the “\$” sign to the European sign for money.

# Hamilton \$

Hamilton Pricing 9:48a ok

1: \$:

2: \$:

3: \$:

4: \$:

Teller ID:  Find Tellers

Get Prices Set Prices

- FIND TELLERS allows you to find all of your Hamilton Gold Line ACW's (Teller ID=ACW Unit Number).
- GET PRICES allows you to pull the prices and names from each of the Hamilton ACW's.
- You can change the prices from this screen but not the wash names.
- After changing the prices you can "Set Prices" back to the ACW. This is done one at a time!

# ADMIN

## Discounts

Discounts 9:48a 

Discount 1:

Discount 2:

Button 1:

Button 2:

Button 3:

Button 4:

Entering a discount value of 999 will force a free wash. Discount 1 is for Button1, Discount 2 is for Button 3.

- The value set in DISCOUNTS is the amount of discount off of a wash price.
- A value of 999 must be set to force a free wash. If another value is in DISCOUNT 2 then that will be the amount discounted on the washes you have set for DISCOUNT 2.
- Button 1-4 will be displayed on your sales window with the text you have entered. Select the keyboard at the bottom of the screen to input text. If you do not input text into a box you will have a blank box on your sales screen.
- DISCOUNT 1 is for Button #1 and DISCOUNT 2 is for Button #3.

# ADMIN

## Taxes

Taxes 9:48a

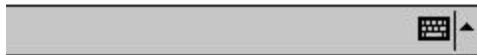
Tax1:  Rate:

#:

Tax2:  Rate:

#:

Compound Taxes?



- Taxes are only applicable to the car wash owner.
- Tax rates are setup in the cash register if you have a Pay-at-the-Pump situation.

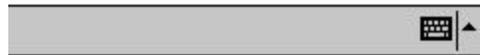
# ADMIN

## Passwords

Passwords 9:49a 

Passwords

Shift1:	<input type="text" value="i"/>	Shift3:	<input type="text" value="0"/>
Shift2:	<input type="text" value="0"/>	Manager:	<input type="text" value="0"/>



- It is **VERY IMPORTANT** that if passwords are set that the appropriate personnel are aware of the codes and where to find them if they are forgotten.
- If a password is not selected then the default password is “0”.
- To input a numerical password select the keyboard symbol at the bottom of the screen.

# ADMIN Reports

**WASH CODE**

Today	Period Report	
Outstanding Codes		
Shifts	Slave	PAP
Hourly Load		
Hamilton Tellers		

**CANCEL** **OK**

# Today Report

**Hamilton Mfg.**  
**1026 Hamilton Drive**  
Holland, Ohio  
43528  
419-867-4858

Period Sales Report  
Report Sequence: 11  
From: 7/28/03 00:00:00  
To: 7/28/03 23:59:59

\*\*\*\*\*

	NG	WG	FR	RE	TOTALS	
super :	0	1	0	0	1	3.50
deluxe:	1	1	0	0	2	11.00
Wash 3:	0	0	0	1	1	0.00
Wash 4:	0	0	0	0	0	0.00
-----						
Total:	1	2	0	1	4	14.50

\*\*\*\*\*

Date: 7/28/03 17:01

- A "Today Report" will report the number of washes that were sold for each wash package and price and give a total of washes and prices.

# Period Report Sold

- A "Period Sales Report" allows you to select a starting date and ending date for a report of the number of washes sold for each wash package and price and the total of washes and prices for that period. By selecting the WASHED category you can retrieve the totals from the Master and any satellite (remote) that may be networked with the Master.

**Hamilton Mfg.**  
**1026 Hamilton Drive**  
Holland, Ohio  
43528  
419-867-4858

Period Sales Report  
Report Sequence: 12  
From: 7/28/03 00:00:00  
To: 7/28/03 23:59:59

\*\*\*\*\*

	NG	WG	FR	RE	TOTALS	
super :	0	1	0	0	1	3.50
deluxe:	1	1	0	0	2	11.00
Wash 3:	0	0	0	1	1	0.00
Wash 4:	0	0	0	0	0	0.00
-----						
Total:	1	2	0	1	4	14.50

\*\*\*\*\*

Date: 7/28/03 17:01

# Period Report Washed

**Hamilton Mfg.**  
**1026 Hamilton Drive**

Holland, Ohio  
43528  
419-867-4858

Period Usage Report  
Report Sequence: 13  
From: 7/28/03 00:00:00  
To: 7/28/03 23:59:59

\*\*\*\*\*

Redeemed from MASTER

	TOTALS
super wash:	1
deluxe was:	2
Wash 3:	1
Wash 4:	0
-----	
Total:	4

\*\*\*\*\*

Redeemed from Satellite POS#: 01

	TOTALS
super wash:	0
deluxe was:	0
Wash 3:	0
Wash 4:	0
-----	
Total:	0

\*\*\*\*\*

Redeemed from ALL

	TOTALS
super wash:	1
deluxe was:	2
Wash 3:	1
Wash 4:	0
-----	
Total:	4

\*\*\*\*\*

Date: 7/28/03 17:01

# Outstanding Codes

- The "Outstanding Codes Report" shows any outstanding code that has passed its validation time.

**Hamilton Mfg.**  
**1026 Hamilton Drive**  
Holland, Ohio  
43528  
419-867-4858

## Outstanding Codes Report

\*\*\*\*\*

	<30	<60	<90	90+	TOTALS
super :	15	0	0	0	15
deluxe:	1	0	0	0	1
Wash 3:	2	0	0	0	2
Wash 4:	1	0	0	0	1
-----					
Total:	19	0	0	0	19

\*\*\*\*\*

Available Codes: 9964  
Outstanding Codes: 19  
Used Codes: 10  
Expired Codes: 7  
Cancelled Codes: 0  
Other Codes: 0

\*\*\*\*\*

Date: 7/28/03 17:01

# Shift Report

- An "All Shift Report" shows a total of all washes sold for each wash package and price and gives a total of washes and prices for all shifts.

**Hamilton Mfg.**  
**1026 Hamilton Drive**  
Holland, Ohio  
43528  
419-867-4858

All Shift Report: 1-3  
Report Sequence: 17  
From: 6/2/03 11:00:00  
To: 7/28/03 17:01:55

\*\*\*\*\*

	NG	WG	FR	RE	TOTALS
super :	0	26	0	0	26 87.50
deluxe:	1	4	0	0	5 1311.00
Wash 3:	0	2	1	1	4 10.00
Wash 4:	0	1	0	0	1 6.00
-----					
Total:	1	33	1	1	36 1414.50

\*\*\*\*\*

Date: 7/28/03 17:01

# Slave Report

- “Slave Sales Report” will report the totals of washes and prices from the Satellites that are networked to the Master.

**Hamilton Mfg.**  
**1026 Hamilton Drive**  
Holland, Ohio  
43528  
419-867-4858

Slave Sales Report  
Report Sequence: 18  
From: 7/28/03 17:01:58  
To: 7/28/03 17:01:58

\*\*\*\*\*

	NG	WG	FR	RE	TOTALS
super :	0	0	0	0	0 0.00
deluxe:	0	0	0	0	0 0.00
Wash 3:	0	0	0	0	0 0.00
Wash 4:	0	0	0	0	0 0.00
-----					
Total:	0	0	0	0	0 0.00

\*\*\*\*\*

Date: 7/28/03 17:01

# Pay-at-the-Pump Report

- “PAP Sales Report” will report total number of washes and prices accepted at the gas pumps.

**Hamilton Mfg.**  
**1026 Hamilton Drive**  
Holland, Ohio  
43528  
419-867-4858

PAP Sales Report  
Report Sequence: 19  
From: 7/28/03 17:02:01  
To: 7/28/03 17:02:01

\*\*\*\*\*

	NG	WG	FR	RE	TOTALS
super :	0	0	0	0	0 0.00
deluxe:	0	0	0	0	0 0.00
Wash 3:	0	0	0	0	0 0.00
Wash 4:	0	0	0	0	0 0.00
-----					
Total:	0	0	0	0	0 0.00

\*\*\*\*\*

Date: 7/28/03 17:02

# Hourly Load Report

- “Hourly Load Report” shows the total number of washes sold each hour.

**Hamilton Mfg.**  
**1026 Hamilton Drive**  
Holland, Ohio  
43528  
419-867-4858

Hourly Usage Report  
Report Sequence: 10  
From: 7/28/03 00:00:00  
To: 7/28/03 23:59:59

\*\*\*\*\*

	TOTAL	Relative Hourly Load
00:00	0	
01:00	0	
02:00	0	
03:00	0	
04:00	0	
05:00	0	
06:00	0	
07:00	0	
08:00	0	
09:00	0	
10:00	0	
11:00	0	
12:00	0	
13:00	0	
14:00	0	
15:00	0	
16:00	4	***** 100%
17:00	0	
18:00	0	
19:00	0	
20:00	0	
21:00	0	
22:00	0	
23:00	0	

-----  
Total: 4

\*\*\*\*\*

Date: 7/28/03 17:01

- Selecting HAMILTON TELLERS allows you to pull an Audit report from the GL-ACW by inputting the Teller ID. It displays the information on the PDA and then can be printed.

Note: Depending on the version of Gold Line Controller you have, the report may look different.

```

*****
AUDIT REPORT Unit #1
MON 06-21-04 01:33 P
*****

```

Item	Name	Price
1	WASH	\$1.00
2	WASH & WRX	\$2.00
3	WASH, WRX, & DRY	\$3.00
4	SUPER WASH	\$4.00

```

*****
CASHIER SALES DATA
MON 06-21-04 01:33 P
*****

```

Hash 1	Resettable	Perpetual
Qty Sold	0	65
Cash	\$0.00	\$0.00
Tokens	\$0.00	\$0.00
Codes	\$0.00	\$121.00
PL Cards	\$0.00	\$0.00
Cr Cards	\$0.00	\$0.00
Total	\$0.00	\$121.00

Hash 2	Resettable	Perpetual
Qty Sold	0	46
Cash	\$0.00	\$0.00
Tokens	\$0.00	\$0.00
Codes	\$0.00	\$127.00
PL Cards	\$0.00	\$0.00
Cr Cards	\$0.00	\$0.00
Total	\$0.00	\$127.00

Hash 3	Resettable	Perpetual
Qty Sold	0	36
Cash	\$0.00	\$0.00
Tokens	\$0.00	\$0.00
Codes	\$0.00	\$129.00
PL Cards	\$0.00	\$0.00
Cr Cards	\$0.00	\$0.00
Total	\$0.00	\$129.00

Hash 4	Resettable	Perpetual
Qty Sold	0	34
Cash	\$0.00	\$0.00
Tokens	\$0.00	\$0.00
Codes	\$0.00	\$143.00
PL Cards	\$0.00	\$0.00
Cr Cards	\$0.00	\$0.00
Total	\$0.00	\$143.00

Totals	Resettable	Perpetual
Qty Sold	0	181
Cash	\$0.00	\$0.00
Tokens	\$0.00	\$0.00
Codes	\$0.00	\$520.00
PL Cards	\$0.00	\$0.00
Cr Cards	\$0.00	\$0.00
Total	\$0.00	\$520.00
Overpaid	\$0.00	\$0.00

Last cleared on MON 06-21-04 01:33 P

```

*****
TRANSACTION SUMMARY
MON 06-21-04 01:33 P
*****

```

Transaction	Resettable	Perpetual
\$20 Bill	0	0
\$10 Bill	0	0
\$5 Bill	0	0
\$2 Coin	0	0
\$1 Bill	0	1
\$1 Coin	0	0
Quarter	0	0
Token Coin 1	0	0
Token Coin 2	0	0
Tokenotes	0	0
#1 Coupons	0	0
#2 Coupons	0	0
#3 Coupons	0	0
#4 Coupons	0	0
Hopper	0	0
Cr Cards	0	0
PL Cards	0	0
Codes	0	181

```

*****
RECONCILIATION OF CURRENT CASH
MON 06-21-04 01:33 P
*****

```

Bills Deposited		\$0.00
Coins Deposited	\$0.00	
Coins Dispensed	\$0.00	
Net Coins		\$0.00
Cashier Balance		\$0.00

End of Audit Report

# ADMIN Settings

Settings 11:46a ok

Local Code Size:  5  6

Drive-Off: 1200

Goodwash: 50

Fleet Sales  Allow Stacking

Allow CE Wash Start 1 Cars

Enable Auto Start

Report slave sales per shift Clear Report #

Report PAP sales per shift Shuffle

Use Emergency Codes

Show wash bay status on sales screen

- Local Code Size allows you to set the length of code that will be issued at the Master site.
- FLEET SALES should be selected if you are going to allow fleet sales.
- ALLOW STACKING should be selected if you are going to allow stacking.
- DRIVE-OFF and GOOD WASH are used for Hamilton Code System II.
- The other categories that are not selected should only be selected if it pertains to their wash setup.

# ADMIN

## Ticket Definitions

Ticket Definitions		9:50a		ok	
	1	2	3	4	
Wash 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/> 1-4
Wash 2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/> 5-8
Wash 3	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/> 9-12
Wash 4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
No Discount:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

ADMIN

- This assigns the text (Wash Name) to the Wash Package.
- NO DISCOUNT allows you to select a wash package and NOT give a discount for that wash package.

# ADMIN

## Email Configuration

Reporting Config 9:50a 

Select reports to send out:

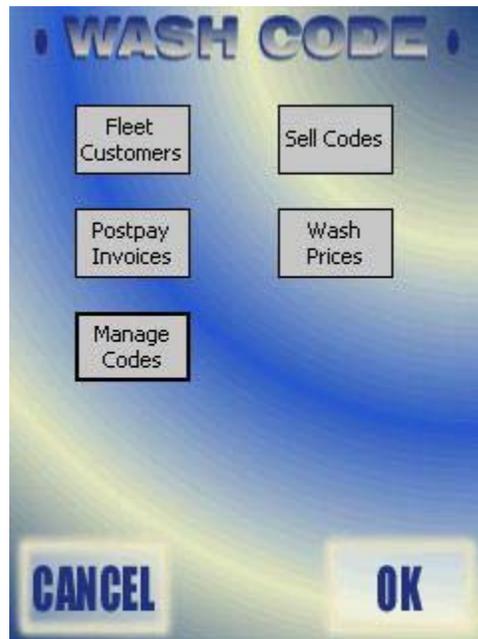
Sold	Used	Email Address(es)
<input type="checkbox"/> Daily	<input type="checkbox"/>	<input type="text"/>
<input type="checkbox"/> Weekly	<input type="checkbox"/>	<input type="text"/>
<input type="checkbox"/> Monthly	<input type="checkbox"/>	<input type="text"/>
<input type="checkbox"/> Yearly	<input type="checkbox"/>	<input type="text"/>



- This allows you to email individual Daily, Weekly, Monthly and Yearly reports on what was sold or what was used.

# ADMIN

## Fleet Functions



- This section will allow you to set up a fleet customer, sell that customer a code, initiate postpay invoices, check wash prices and manage fleet codes.

# Fleet Customers

**Fleet Customer Info** 9:51a 

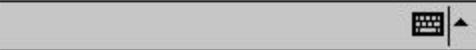
Name:

Address:

Telephone:

Fax:

Email:



- This allows you to enter personal information on the fleet customer.
- From this screen you can delete a fleet customer, print the information and input a new customer.
- Select the “Pricing” box to set pricing for this fleet customer.

# Fleet Pricing

**Fleet Customer Info** 8:24a

Postpay      Credit   
 On Credit Hold

Program Mask:  
1 2 3 4 5 6 7 8 9 10 11 12

Price Group:  
Standard   
Standard  
A  
B  
C

- To setup a fleet account as a postpay account, check the POSTPAY box. Leaving that box blank will automatically setup the account as prepay.
- Then select PROGRAM MASK. PROGRAM MASK is the wash package and it must be selected to assign a wash package to this account. (You can select as many or as few wash packages as you have.)
- “Standard” pricing is the default setting. If you would like to use a price group, select the group letter from the pull down menu.



# Manage Codes

**Fleet Summary** 9:53a 

Customer:

Ousting Codes:

Print Transactions

Prepay \$

Refund \$

Edit Code

Delete Code

- This screen allows you to view a customers' codes.
- PRINT TRANSACTIONS allows you to print a codes invoice.
- PREPAY allows you to add money to a customers account.
- REFUND allows you to refund money.
- EDIT CODE and DELETE CODE allows you to edit codes or delete codes.

# Postpay Invoices

**Fleet Summary** 8:56a 

Customers:

car wash city

Print All  
Invoices

Print Selected  
Customers

- This allows you to select one or more customers and print out their invoices.

# Program Pricing

The screenshot shows a menu titled "Program Pricing" with a timestamp of "9:47a" and an "ok" button. The menu contains six numbered items, each with a text input field and a price field. The first four items are "Wash 1" through "Wash 4" with prices of 5, 6, 7, and 8 respectively. The last two items are empty text fields with prices of 0. Below the wash items are three radio button options: "Standard Pricing" (selected), "1-6", and "7-12". A "Fleet Pricing" section contains three radio buttons for "A", "B", and "C", and two radio buttons for "High" (selected) and "Low". A "High/Low Time" button is also present. At the bottom, there is an "Enable Euro Symbol" checkbox and a "Hamilton \$" button. A keyboard icon is visible in the bottom right corner of the screen.

- By selecting the keyboard at the bottom of the screen you can input your wash names and wash prices.
- Next section is FLEET PRICING. This allows you to set different price groups (A, B or C) for your fleet codes. You may also use “Standard Pricing” for your fleet pricing.
- HIGH/LOW TIMES allows you to set two different price settings for each fleet group—a high and a low price. You will then be able to set the times that high or low pricing should be used, as well as being able to set when a code is not usable.
- The ENABLE EURO SYMBOL only changes the “\$” sign to the European sign for money.

# Hamilton \$

Hamilton Pricing 9:48a

1:	\$:	<input type="text"/>
2:	\$:	<input type="text"/>
3:	\$:	<input type="text"/>
4:	\$:	<input type="text"/>

Teller ID:

- FIND TELLERS allows you to find all of your Hamilton Gold Line ACW's (Teller ID=ACW Unit Number).
- GET PRICES allows you to pull the prices and names from each of the Hamilton ACW's.
- You can change the prices from this screen but not the wash names.
- After changing the prices you can "Set Prices" back to the ACW. This is done one at a time!

# Manage Codes

**Fleet Summary** 9:53a **ok**

Customer:

Oustanding Codes:

Print Transactions

Prepay \$

Refund \$

Edit Code

Delete Code

⌨️

- This screen allows you to view a customers' codes.
- PRINT TRANSACTIONS allows you to print a codes invoice.
- PREPAY allows you to add money to a customers account.
- REFUND allows you to refund money.
- EDIT CODE and DELETE CODE allows you to edit codes or delete codes.

# ADMIN

## About

About

10:15a 

Copyright (C) 2002  
Hamilton Manufacturing

HCS-4  
Version 4.01

Warning: This computer program is protected by copyright law and international treaties. Unauthorized reproduction or distribution of the program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law.



- This will give you the version of the Wash Code program installed.
- This will also state a warning of copyright laws and international treaties.

# ADMIN

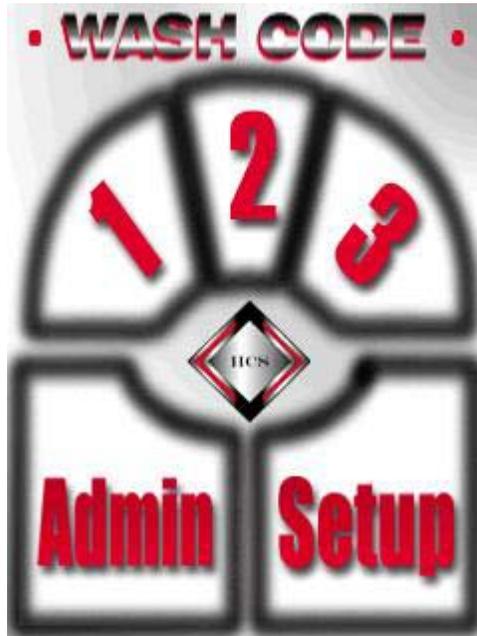
## ACW Status

Busy State Logs 9:53a (ok)



- This will allow the customer to view the status of all of their GL-ACW's.

# Wash Code



# 1-2-3

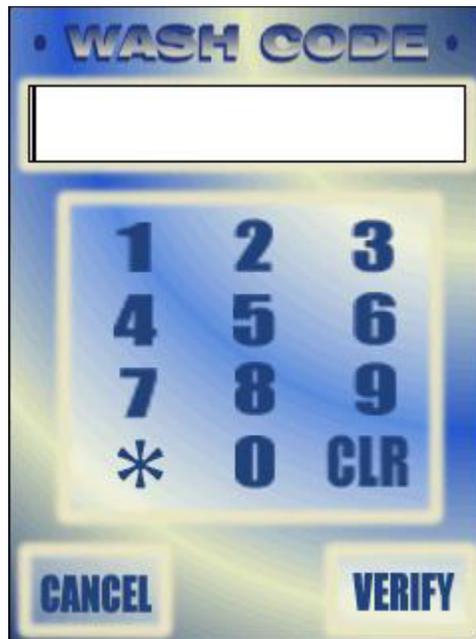


# 1-2-3 Sell



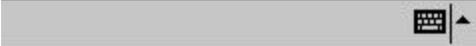
- This allows the customer to select a wash with a discount, without a discount, free or rewash and issue a code.

# 1-2-3 Verify



- This allows you to input a code and check its status.

# 1-2-3 Report

Shift Report		9:55a		ok	
	FP	D1	Other		
Wash 1	0	1	0		
Wash 2	0	0	0		
Wash 3	0	0	0		
Wash 4	0	0	0		
Grand Total:	\$ 3.00				
Tax 1:	\$ 0.00				
Tax 2:	\$ 0.00				
<input checked="" type="radio"/>	1-4	<input type="radio"/>	5-8	<input type="radio"/>	9-12
					

- This report screen will allow you to see how many washes were sold at full price, discounted price and at free/rewash.
- “FP” is full price, “D1” is discount 1 and “Other” is discount 2 or free.

# 1-2-3 Logoff



- This screen allows you to log off from your shift and print your shift report.

# APPENDIX A

## PDA Flash Card and Battery Installation

1. Main power to PDA should not be plugged in
2. Lay PDA face down and then remove the 4 screws in the back of it. Note: There is a screw in each corner.
3. Then separate the cover from the cradle (By pulling on the cradle and hanging on to the cover)
4. Then stand the cradle up with the PDA laying in it.
5. Remove modem from top of PDA and lay off to side.
6. Lay PDA face down.
7. Look for Battery Lock (It is in the center of the back of the PDA)
8. Slide switch from "Lock" to "Main"
9. Slide cover off.
10. Insert main battery into battery compartment. (Battery needs to drop straight in)
11. Replace main battery cover.
12. Slide Lock switch from "Main" over to "Back Up".
13. Turn PDA over and Battery Back Up cover will fall out
14. Insert battery (back up) into back up compartment. (Battery must slide under the lip of the opening making sure that the writing on battery is facing up. Battery will not charge if inserted incorrectly.)
15. Replace back up battery cover.
16. Slide the Lock switch to the "Lock" position. (Make sure you are in the middle because if you are not the PDA will not turn on)
17. Plug in main power into outlet.
18. Depress "Power" button on the left side of PDA.
19. Next screen displays: "Initializing Memory"
20. Then screen will display "Starting"
21. Next screen displays: "Welcome"
22. Tap on screen.
23. Next screen displays: "Align Screen" Tap and follow the cross tapping each cross in the

center of the cross.

24. Next screen displays: “Stylus” Read and Tap “Next”
25. Next screen displays: “Pop Up Menus” Tap and hold Appointment until; cut, copy, paste and delete screen appears. Tap “Cut”
26. Next screen displays: Tap and hold on 11AM Line until cut, copy, paste and delete screen appears. Tap “Paste”
27. Tap “Next”
28. Next screen displays: “Location” Tap pull down in right corner of location box and scroll till appropriate city appears. (Toledo, Ohio) Note: Not All City’s are listed, so you will have to choose a city close to your city and time zone. Also when a city is selected the “Time Zone” automatically changes.
29. Tap “Next”
30. Next screen displays: “Complete” Tap screen.
31. Next screen displays: “Today Screen”
32. Insert flash card into top of PDA and press down. Note: Make sure that the arrow in the lower left hand corner is facing you and slides into PDA first.
33. Auto run will start.
34. Wait till process is complete and tap the “Ok”
35. The Today screen will still be showing
36. Remove flash card.
37. Depress “Reset Button” on back of PDA
38. Next screen displays: “Starting”
39. Next screen displays: “Clock Setting” **Caution: Home Clock Must Be Set Correctly!!**
40. Tap on keyboard at bottom of screen to change Time, Month/Date/Year
41. Tap “Ok”
42. You will be prompted to save your settings. Tap “Yes”
43. Next screen displays: “Wash Code htp” Tap “Ok”
44. Next screen displays: “Starting”
45. Wait about 5 seconds
46. Next screen displays: “Wash Code Program” 1/2/3 Admin/Setup
47. Tap “Setup”

48. Next screen displays: "Password" Tap "Ok"
49. Next screen displays: "Wash Code Programs" At the bottom of the screen tap "About" to check the version.
50. Tap "Ok"
51. Next screen displays: Wash Code Programs"
52. Insert Modem back into PDA. Note: Make sure cord runs up the back of the PDA in the center.
53. Slide cover back over cradle.
54. Replace all 4 screws.
55. Program PDA

# **APPENDIX B**

## **Basic Trouble Shooting for HCS IV**

### **A) CODES NOT BEING ACCEPTED**

#### **1. Check the following in the EIC and Controller:**

- In the EIC the HCS option must be activated.

Note: The **HCS** must be displayed on the Hand-held to signify the system is turned on in the EIC.

Example:

*EIC VXXX HCS  
HAMILTON MFG  
SERIAL #XXXXX  
00:00 00/00/0000*

- Check “**SET POS TYPE**,” this parameter should be set at either HCS 5 digit or HCS 6 digit depending on system configuration.
- Check “**SET POS COM MODE**”, this parameter should be set to the ONLINE mode.
- Check “**SET UNIT NUMBER**”, this parameter allows you to set multiple machines up with a different unit number.

Note: In controller units 1.8 or lower the factory default for the unit number was 2, but in controller units 2.0 or higher the factory default for the unit number is 1.

#### **2. Check communication wiring.**

- Check the surge suppressor to make sure that it is plugged into #17 on the Distribution Board making sure that it is properly plugged in.
- Check to make sure that the wires are inserted into position number 19 and number 18 in the surge suppressor.

Note: We recommend that a 1 pair shielded twisted cable wire is used to be run for the communication. Whatever color you use for the position number 19 must be attached to the positive side in the grey box (interface box) and the other color must be attached to number 18 which will attach to the negative side in the grey box. (These can be noted in two different ways +/- or 18, which is negative and 19, which is positive.)

- Check the connection in the grey box for proper installation. (See note above).

Note: 3 seconds versus 10 seconds! A very big difference between the two. Example: Standing at the Gold Line you pick a 5-digit number (or 6 depending on how you have the controller set up and input it on the keypad if with in 3 seconds it goes to “Invalid Code” then you know that the Gold Line is communicating with the PDA. If you enter a 5-digit number (or 6) and it

takes 10 seconds to go “Invalid Code” then you are not communicating with the PDA.

**Caution:** You can be communicating with the PDA even if the PDA is not set up correctly.

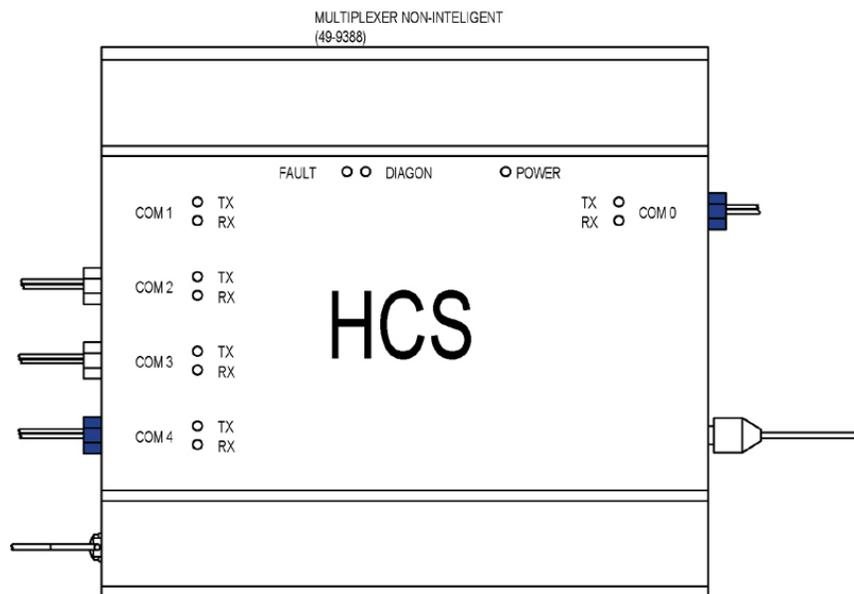
### 3. Check the configuration of the Multiplexer:

- Check the connection of the PDA to the Multiplexer it needs to be in COM 0.

Note: Make sure that they do not have the Modem cable connected into COM 0. The MUX-CE cable is connected at COM 0 and connected to 9 Pin D-Sub coming from the PDA.

- Check the connection of the grey interface box to the Multiplexer it needs to be in COM 4

Note: This COM port is a 485 port and is only used for the communication from the Gold Line to the PDA.



#### 4. Check the PDA configuration:

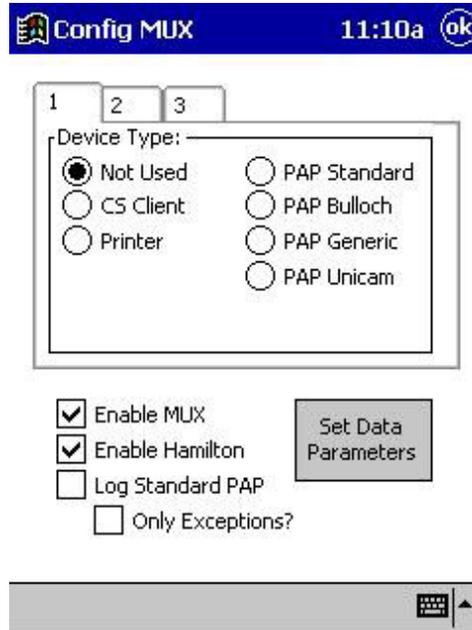
- Check the PDA's internal clock, it must be set to the correct time zone (Home) depending on the location of the equipment.



- Check the Multiplexer configuration in the PDA.

Note: That in a Master application both “Enable MUX” and Enable Hamilton” must be selected.

- Check that the correct COM port is associated with the connectors being connected to the Multiplexer.



- Check the **Ticket Definition** in the PDA.

Note: You are defining the text (wash name) to the wash package according to the way you have the washes set at the Gold Line.

**Ticket Definitions**
9:19a

	1	2	3	4	
Wash 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/> 1-4
Wash 2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/> 5-8
Wash 3	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/> 9-12
Wash 4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
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- Check the **Settings** in the PDA.

Note: You want the Local Code Length to match the Code Length set in the controller under “POS TYPE”.

Settings 11:46a ok

Local Code Size:  5  6

Drive-Off: 1200

Goodwash: 50

Fleet Sales  Allow Stacking

Allow CE Wash Start 1 Cars

Enable Auto Start

Report slave sales per shift Clear Report #

Use Emergency Codes Shuffle

Show wash bay status on sales screen

- Check the **Ticket Info** in the PDA.

Note: You must have a valid numeric value.

**Ticket Info** 9:15a 

Valid Days:

Address:

Telephone:

Footer:

Include barcode on printout?

Printout language

English  French  Spanish



- Check the **Program Pricing** in the PDA.

Note: Wash names and pricing should match what you have set up in your Hamilton Auto Cashier.

**Program Pricing** 9:16a

1	Wash 1	\$ :	5
2	Wash 2	\$ :	6
3	Wash 3	\$ :	7
4	Wash 4	\$ :	8
5		\$ :	0
6		\$ :	0

Standard Pricing  1-6  7-12

Fleet Pricing

A  B  C

High  Low

Enable Euro Symbol

- Check the **Config POS Type** in the PDA.

Note: Make sure that Config POS Type is set up as Standard if there are no Satellites being utilized.

**Config POS Type** 9:02a **ok**

Satellites

Standard  With PAP

Max Satellites: 1 **Reset Satellite**

Max Progs: 4

Max Codes: 1082 **Master Address**

Network Mask: 1234

Max Window: 20

Satellite 1

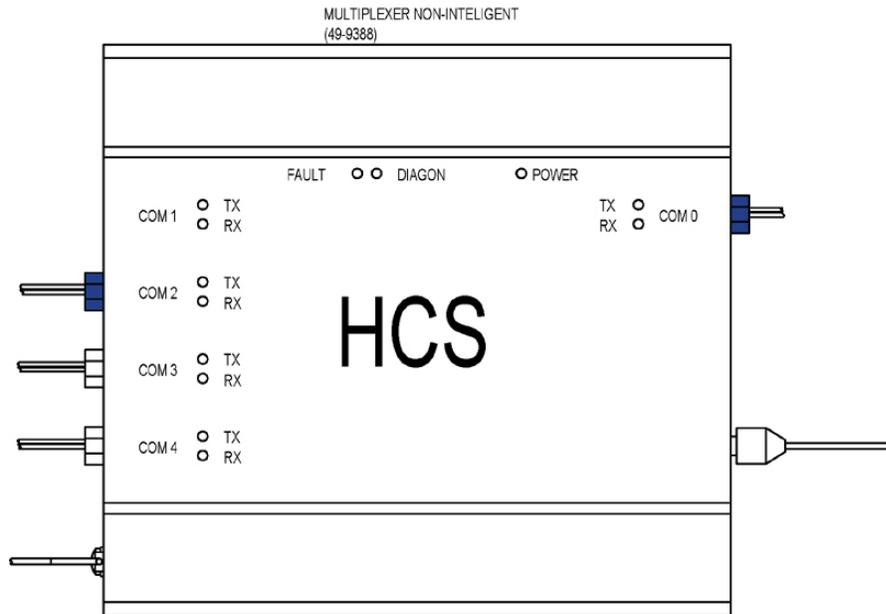
Satellite 2

Satellite 3

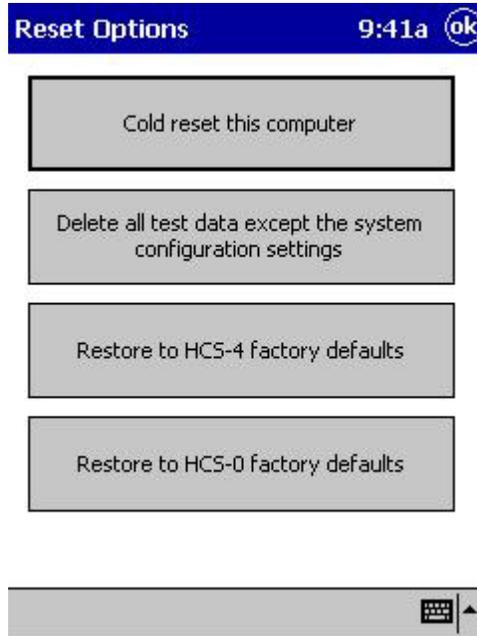
Satellite 4

**B) CODES WILL NOT PRINT**

- Make sure that the correct Com is being used for the printer and PDA.

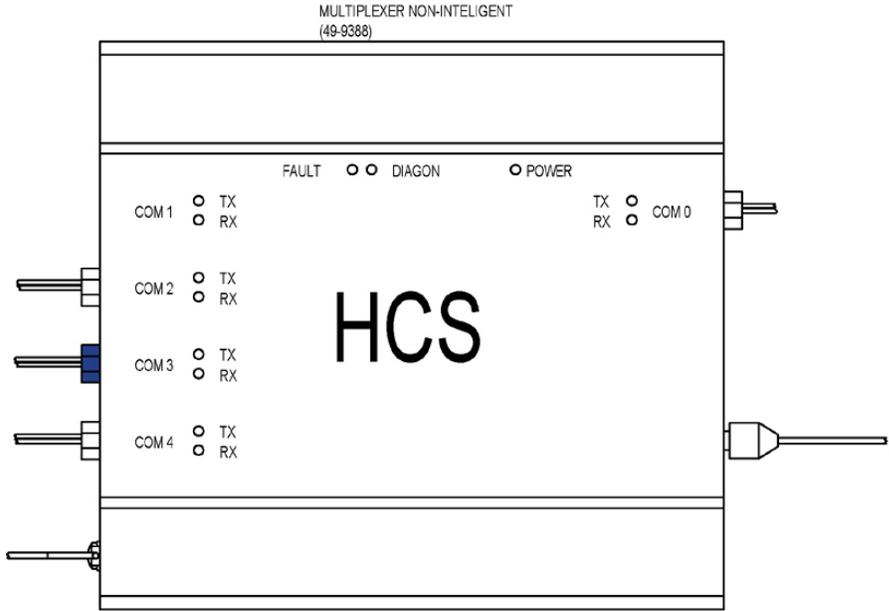


- If you have the Multiplexer already powered and then you plug in the PDA to the Multiplexer you may have to do a cold reset. Sometimes when plugging the PDA in hot, (with power on) you can generate a code but it will not print it until you have reset the PDA.



**C) NO COMMUNICATION WITH THE CASH REGISTER:**

- Check to make sure the register is mated up with a MUX-CE cable coming from COM 3 of the Multiplexer.



- Check to make sure that there is a Car Wash Program on the register and it is turned on to communicate with the PDA.

## **D) COMMUNICATION PROBLEM WITH MULTIPLE GOLD LINES:**

- Example of a situation when you have 2 or more Gold Lines and neither (or all) of them are not excepting codes.

Note: You are sure that all programming and wiring is correct.

On Gold Line #1 you will unplug communication wire from #17 on the distribution board and then go and input a code into the keypad. If it does or does not accept the code we will unplug #17 on the distribution in Gold Line #2 and then plug in #17 in Gold Line #1 and repeat the code process.

Depending on the out come:

GL #1 did accept code  
GL #2 did not accept code  
Check EIC in GL #2

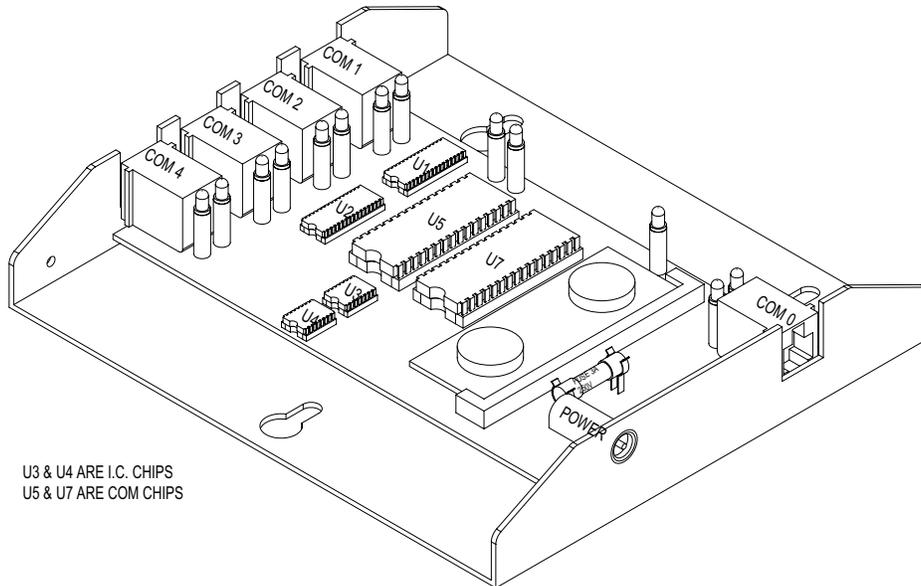
GL #1 did not accept code  
GL #2 did accept code  
Check EIC in GL #1

Note: That the most obvious choice will be the I.C. Chip in U3.

**Please note that if you turn off a machine YOU MUST WAIT for the EIC transmit and receive light to return to flashing together before entering a code.**

# APPENDIX C

## COM Chips in the MUX



- The MUX has three sets of com chips-U1 & U2, U3 & U4, and U5 & U7.
- U1 & U2 should never be removed unless otherwise specified by the factory.
- U3 & U4 are com chips for the communication between the Gold Line Autocashier and the MUX.
- U5 & U7 are fro the communication between the pump side and the MUX.

# **LIMITED WARRANTY AGREEMENT OF HAMILTON MANUFACTURING CORP.**

Hamilton Manufacturing Corp., an Ohio Corporation, ("Seller") warrants to Purchaser that all new equipment shall be free from defects in material and factory workmanship for a period of one (1) year from the original shipping date. Hamilton Manufacturing Corp. further warrants if any part of said new equipment in Seller's sole opinion, requires replacement or repair due to a defect in material or factory workmanship during said period, Seller will repair or replace said new equipment. Purchaser's remedies and the liabilities and obligations of Seller herein shall be limited to repair or replacement of the equipment as Seller may choose, and Seller's obligation to remedy such defects shall not exceed the Purchaser's original cost for the equipment. Purchaser EXPRESSLY AGREES this is the EXCLUSIVE REMEDY under this warranty. There are no other express or implied warranties which extend beyond the face hereof. All warranty repair service must be performed by either a Factory Trained Service Representative or **HAMILTON MANUFACTURING CORP., 1026 Hamilton Drive, Holland, Ohio 43528 PHONE (419) 867-4858 or (800) 837-5561, FAX (419) 867-4867.**

The limited warranty for new equipment is conditioned upon the following:

1. The subject equipment has not, in the Seller's sole opinion, been subjected to: accident, abuse, misuse, vandalism, civil disobedience, riots, acts of God, natural disaster, acts of war or terrorism.
2. The Seller shall not be liable for any expense incurred by Purchaser incidental to the repair or replacement of equipment and Purchaser shall assume full responsibility for any freight or shipping charges.
3. The coverage of this warranty shall not extend to expendable parts.
4. Purchaser shall have a warranty registration card on file with Seller prior to any claim in order for warranty protection to apply.
5. No warranty coverage is applicable to any equipment used for currency other than that specified at the time of the purchase.
6. Seller expressly disclaims any warranty that counterfeit currency will not activate said equipment.
7. Seller expressly disclaims any warranty for any losses due to bill manipulation or theft or loss of cash under any circumstances.

Seller further warrants all repair or service work performed by a factory trained representative or Hamilton Manufacturing Corp. for a period of ninety (90) days from the date the repair or service work was performed. Purchaser's remedies and the liabilities and obligations of Seller herein shall be limited to repair or replacement of equipment as Seller may choose, and Seller's obligation to remedy such defects shall not exceed the Purchaser's depreciated value of the equipment. Purchaser EXPRESSLY AGREES this is an EXCLUSIVE REMEDY under this warranty. There are no other express or implied warranties on repair or service work performed by a factory trained representative or Hamilton Manufacturing Corp. which extend beyond the face hereof.

(See next page for additional provisions)

The limited warranty for repair and service work is conditioned upon the following:

1. The subject equipment has not, in the Seller's sole opinion, been subjected to: accident, abuse, misuse, vandalism, civil disobedience, riots, acts of God, natural disaster, acts of war or terrorism.
2. The Seller shall not be liable for any expense incurred by Purchaser incidental to the repair or replacement of equipment and Purchaser shall assume full responsibility for any freight or shipping charges.
3. The coverage of this warranty shall not extend to expendable parts.
4. Purchaser shall have a warranty registration card on file with Seller prior to any claim in order for warranty protection to apply.
5. No warranty coverage is applicable to any equipment used for currency other than that specified at the time of the purchase.
6. Seller expressly disclaims any warranty that counterfeit currency will not activate said equipment.
7. Seller expressly disclaims any warranty for any losses due to bill manipulation or theft or loss of cash under any circumstances.
8. No person or entity other than a factory trained representative or Hamilton Manufacturing Corp. has performed or attempted to perform the subject repair or service.

THIS AGREEMENT IS MADE WITH THE EXPRESS UNDERSTANDING THAT THERE ARE NO IMPLIED WARRANTIES THAT THE EQUIPMENT SHALL BE MERCHANTABLE, OR THAT THE GOODS SHALL BE FIT FOR ANY PARTICULAR PURPOSE. PURCHASER HEREBY ACKNOWLEDGES THAT IT IS NOT RELYING ON THE SELLER'S SKILL OR JUDGMENT TO SELECT OR FURNISH EQUIPMENT SUITABLE FOR ANY PARTICULAR PURPOSE AND THAT THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THAT WHICH IS DESCRIBED HEREIN.

The Purchaser agrees that in no event will the Seller be liable for direct, indirect, or consequential damages or for injury resulting from any defective or nonconforming new, repaired or serviced equipment, or for any loss, damage or expense of any kind, including loss of profits, business interruption, loss of business information or other pecuniary loss arising in connection with this Limited Warranty Agreement, or with the use of, or inability to use the subject equipment regardless of Sellers knowledge of the possibility of the same.

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