Installation and Setup for the Cayan Genius Handheld

Hardware: **Cayan Genius Handheld (purchase from Cayan)**
Keystroke Software: **Keystroke POS – v8.00 Build 70 or later (02/27/19)**

Description of the Cayan Genius Handheld

The Cayan Handheld accepts a variety of payments (Credit, Debit, Gift, EBT Cash, EBT SNAP, Apple Pay, Android Pay).

Connecting the Handheld to your Wireless Internet

The Genius Handheld provides you with an Internet Connection through a Wireless Network (Wi-Fi). When you first receive the device, you will have to set it up to your existing Wi-Fi connection.

- Get to the home screen which may require you to tap the Home Button
- Find the Settings Icon and tap it. Then select Wireless and Networks
- Tap on Wi-Fi and find your "familiar" Wireless Network, then tap on it
- Enter your Password and select Connect

Note: Each Genius Handheld on a network must have a unique IP Address and must on the same network your Computer PC is connected to. For this reason, the device may need to be switched from Dynamic IP (DHCP) to Static IP.
*See "Setting up Static IP Address" under Technical Notes below, if needed.

How the Cayan Genius Handheld works with Keystroke POS

Keystroke recognizes that the Cayan Genius is being used, and when selecting a sales payment, Keystroke will hide all of the payment types that have been "mapped" to a Cayan Genius payment. See: Payment Mapping below on Page 3.

Once setup, and at the complete sale screen, you will have 3 options displayed under the list of payments:
- Selected by Customer (the customer is prompted to select the type of payment)
- Split Tender (the clerk is prompted to enter an amount and hit enter)
- Manually Entered Payment (the customer is prompted to enter payment on device) – Option A
- Manually Entered Payment (where the clerk is prompted to enter payment on Web Transport) – Option B

The Cayan Genius can also be used as a Signature Only device where a customer can sign a Sales Transactions for other payment types like On Account. These signatures are stored and can be printed on receipts, statements, etc.

Setup the Pin Pad in Keystroke POS

- In Configuration Manager, select the Hardware menu and PIN Pad
- Click on the PIN Pad Type button and choose Genius
- Click on the Setup button
- Enter the Business Name, Key and Site ID info exactly as provided by Cayan
- Confirm the Payment Mappings. *See "Payment Mappings" under Technical Notes below
- Leave Gratuity, Donations, and Discounts as (None). *See Technical Notes below.
- Select the Line Item Display option desired. *See Technical Notes below.
- Select Manual Entry on Web Form if using MOTO (Mail Order, Telephone Order). *See Technical Notes below.
- Enter Genius IP Address of the Genius device. Each computer will retain its own IP address for the device in the Windows Registry. *See Technical Notes below. Click OK
- when the program prompts you "Parameters for Gratuity/Donations/Discounts should be set up. Would you like to set them up now?" Answer No, unless these features are desired.
- Click OK one last time to save the PIN Pad settings.

Test the device by clicking on the "Test PIN Pad" button

- Click Ok on PIN Pad Test window and again on the Testing Genius window
- Click Ok on the Transport Key window
- Now follow the prompts on the screen of the device
- The Testing Genius window with Status at the top will have a test transaction date near the bottom that uses the GMT time zone. Click Ok after review
- You can now view the test signature capture; press enter or click the X to close
- You will now be prompted to "Remove Payment?" Click OK, three times

Technical Notes:

Setting up Static IP Address

To configure the Cayan Genius Handheld for Static IP you will want to follow these steps:

- From the computer that you will connect running Keystroke on, open a Command Prompt (CMD.EXE) and run IPCONFIG /ALL. Take note of the IPv4 Address, Default Gateway, both DNS Servers
- The network settings for the Genius are found in the Android OS Settings app
- They can be set manually **when you first connect to your Wi-Fi network**
- If they need to be changed in the future, you must go into Wi-Fi settings, select your current network and tap "Forget"
- Next, select the WIFI Network, but before entering a password and attempting to connect, hit the back key to close the keyboard and scroll down to **"Show advanced options."** This is where you will find settings for proxy and IPv4 settings are now displayed.
- DHCP is enabled by default but should be **changed to "Static"**
- You can now specify the IPv4 Address, Gateway, and DNS Addresses 1 & 2
- Enter your WPA password and now tap connect
- Once connected, it is suggested you reboot the handheld device

To verify the device is connected to the Cayan servers, in the Genius app, tap the "info" icon in the top right-hand corner. Terminal Status should say "okay." You can also verify the IP specified above.

In Keystroke, the Genius Handheld configuration is identical to the Cayan Genius Countertop unit.
- In Configuration Manager, under Hardware, PIN Pad, enter your Business Name, Business Key, Site ID
- Enter the IP Address at the bottom of the screen
- Setup your Payment Mappings (See: Payment Mapping below on Page 3)
- The Line Item Display can be set to Off, On, or On w/ Upload

Payment Mapping

You "map" the Cayan Payment Codes to the desired Keystroke Sales Payment Types by pressing <Enter> to select the Keystroke Payment Type for each of the Cayan Payment Codes.

Keystroke recognizes that Cayan Genius is being used and when entering a new payment in Keystroke, hides all the payments mapped to a Cayan Genius payment, and adds three new payments called "Selected by Customer", Split Tender, and "Manually Entered Payment".

Note: All Genius Payment Codes must be mapped, even if the Code will never be used. If support for a new Genius Payment Code is added to the Genius device by Cayan, it also needs to be added to the Payment Mappings list (press [Ins] or hit [Enter] on <Add New> at the bottom, to add the new Genius Payment Code). The Cayan Genius device accepts a wide variety of payment types. Once a payment is completed it reports back which Payment Code was used. Keystroke must then convert (or map) this Payment Code to the appropriate Keystroke Sales Payment Type.

Storing of the IP Address

Once the IP Address is entered into Keystroke, each machine on a network will store the IP Address in the registry as it is unique for each machine. It is stored in the following registry key:

HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\KeystrokePOS\MWGenius (64-bit)
HKEY_LOCAL_MACHINE\SOFTWARE\KeystrokePOS\MWGenius (32-bit)
The value will be a string value named "IPAddress"
NOTE: If you have issues saving the IP Address, try using the "GeniusIP=xxx.xxx.xxx.xxx" Startup Switch. This overwrites the registry values.

Position of the Payment Types

The result is the list of payments will have three (3) new payments called "Selected by Customer", "Split Tendered", and "Manually Entered Payment". The position of these payments on the payment list is determined by the position of the first mapped payment. To change the payment order, use Cut/Paste in the list of Sales Payment Types.

Manual Entry on Web Form

This setting is used to launch Cayan's Web Based Payment Entry Window when "Manually Entered Payment" is selected from the payment list (instead of prompting for the card information to be entered on the payment device).

Note: While the entry of payment information may be easier using the web form and a computer keyboard, the computer keyboard is not a secure device and can be used as the instrument of a data breach. It is therefore recommended that this parameter be left OFF and the card be manually entered on the Cayan Genius device.

Payment Hot-Keys

Any Hotkeys, Macros, or Buttons that are used to bring up any of the payment types mapped to the Genius will activate the "Selected by Customer" payment type. Other Toolbar Macros that will work with the Genius include:

    SalesEntryCommand: EnterPayment, Number=-1 (this will use the Selected by Customer)
    SalesEntryCommand: EnterPayment, Number=-2 (Manually Entered Payment)
    SalesEntryCommand: EnterPayment, Number=-3 (Split Tender)
    SalesEntryCommand: EnterPayment, Number=-4 (Swipe, Confirm Amount)

Notes:
- The Toolbar Editor will not display these options, just select any other payment and then edit the number.
- If using the =-1 option, and get Split Tendered, then turn ON the Skip Tender Amount flag on the credit card.
- If the list of payments appears, check your Genius Payment Mappings, one may be set to Accounts Receivable.

Setting up Gift Card Functions (Issue, Reload, and Balance Inquiry, Redeem)

Keystroke POS now supports Issuing, Reloading, Balance Inquiry, and Redeeming of Gift Cards through the "Customer-Facing" Genius device. Keystroke also allows the clerk to manually enter gift cads on the computer keyboard (added in version 8.00.46). You no longer have to use KeyPay or have a separate mag-stripe reader for these functions.

1)   Add a payment type for Gift Card in Configuration Manager, under Tables, Sales Payment Types. Adding a second payment type like "Return to Gift Card" is optional but may help when issuing a gift card on a return.

2)   Create Inventory Items in Keystroke POS for Issue, Reload, and Balance Inquiry.
     - Use "Token Values" (i.e. $&$) in the descriptions of items to help with printed invoices/receipts.
       Examples of Item Descriptions:
         GIFT CARD ISSUE $&$
         GIFT CARD BALANCE
         GIFT CARD RELOAD $&$
     - Put an "&" in the Product Code field
     - Mark items as Service Items
     - Set the items cost and price to $0.00
     - Set the items to Non-Taxable.
     - Add "Balance: $&#" in the Inventory Comment by hitting Shift-Enter on the item.

3)   Setup Gift Card Triggers in Configuration Manager, under Tables, Gift Cards… If prompted, allow Keystroke to create the default Gift Card Triggers.

4)   Disable the Authorization Methods by setting the Default (Ctrl-F7) Auth Method to None.
     Once saved, the program will prompts you to change all triggers. Answer YES to change all triggers to none.

5)   You are now ready to test the triggers in Sales Manager. Enter any one of the line items added above, and the Genius will prompt you to swipe the gift card.

6)   When you are ready to pay using a gift card, just use the Selected by Customer payment type.

Line Item Display

The **Line Item Display** button may be set to On to enable Keystroke to update the Genius device to display the line items (up to a maximum of 200 line item) from the sale as they are entered.

Note: When loading a previously saved transaction, only the last 40 items are sent to the device.
*When the "On w/ Upload" option is selected the Genius device uploads the line item data to the Cayan servers and supports only quantities from -99 to 999 and no fractions. If a line item does not meet this requirement it will be uploaded with a Qty of 1 and the price set to the total amount for that item (Qty*Price). Also, due to restrictions on the length of the fields, the Description will often be truncated down to as few as 9 characters.*

Technical Notes (Continued):

Gratuity Setup in Keystroke POS for the Cayan Genius.

First, contact Cayan and have them turn on the Default Values for Gratuity. You will need to know Serial Number on each Genius device. They will turn it on for you. You will have to restart the Genius device to take effect.

In Keystroke POS, setup a new Payment type in Configuration Manager, Tables, Sales Payment types:
- Give it a name of Gratuity (or similar like Tips, etc.)
- Make it available on Sales Transaction
- Make sure there is no Authorization Method attached to it

On each and every Credit Card Payment type, you will now see a Gratuity Button on the lower right. Use this button and set all Credit Card payment types to Gratuity. The customer can select a % amount or select Other Amount.

Troubleshooting:

Firewall/Router Port Settings:

> 443: SSL
> 7622: SFTP (via SSH)

> Confirm that the following hosts are available
> genius.merchantware.net
> transport.merchantware.net
> paycube.merchantware.net

Firewall/Router Access

The following URLs/Web Address must be allowed access in your Router or Firewall
https://transport.merchantware.net
https://genius.merchantware.net

To Test the Cayan Ports in Internet Explorer, use:
https://genius.merchantware.net/v1/Reporting.asmx
This will give you a "Mustang Reporting" page.

Files that hold the Cayan Genius Settings
- **KSCNF.DAT**   The file that stores the PIN Pad Type = Cayan Genius (or /C KSCNF#.DAT).
- **MWGenius.DAT**   The file that stores the Settings = Cayan Credentials, Payment Mappings, Gratuity, etc.
- **MWGenius=xxxxxxxx.DAT** command line switch:
  Can be used to specify which data file should be used to load the settings for the Cayan Genius PIN Pad.
- **GeniusIP=xxx.xxx.xxx.xxx** command line switch:
  Used to specify the network IP Address of the Cayan Genius PIN Pad device that the program will use (overrides entry stored in Windows Registry). Example: GeniusIP=192.168.10.101
- **Windows Registry**   Windows Registry entry to store the local Genius device's IP Address:
  HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\KeystrokePOS\MWGenius (64-bit) or
  HKEY_LOCAL_MACHINE\SOFTWARE\KeystrokePOS\MWGenius (32-bit)
  NOTE: May need to run Keystroke POS "As Admin" to get these settings to stay.

Error Messages/Warnings:

Error requesting new Transport Key – "Dba is required but was not supplied."

This is caused by the Company Name field being blank. This is in Configuration Manager, under Settings and Name/Address. This must contain something. This is **not** the Business Name in the Genius Setup (with Business Key and Site ID).

Error Messages/Warnings (Continued):

Error requesting new Transport Key: Invalid login credentials:
This is due to having incorrect Business Name, Business Key or Site ID in the Genius settings. These must match exactly what provided in the Cayan account setup.

Flush the DNS Cache:
Suggested by Cayan Support when issues connecting to the Genius.
Open a Command Prompt, and type in **ipconfig /flushdns**
You should see "Successfully flushed the DNS Resolver Cache".

Trouble Saving the Genius IP Address in Keystroke POS:
You may need to run Keystrok.exe "As Administrator". This is because the settings need to be stored in the Windows Registry. You should only need to run it once as Administrator and the setting will be saved. You can also force the IP Address by using the Startup Switch: GeniusIP=xxx.xxx.xxx.xxx

Getting "Error: FALSE" in Keystroke POS:
May happen when processing payments and Internet is down or Cayan is down. Note that an outage with Cayan may be regional so other customers or SBS may not experience the outage.

Invalid Response from Cayan Genius "Error: Invalid Terminal Serial Number"
Call Cayan Technical Support at 800-498-0823 (x1, then x2) and have them add the correct serial number of the Genius to your merchant account.

Getting "FAILED; 1103; error reading response" in Keystroke POS:
This happens when setup using PGS, and Cayan is not communicating the correct "Datawire ID" to the back-end processor (BofA for example). No changes need to be made in Keystroke/Genius, just need Cayan to fix the Datawire ID to the back-end processor.

Set your Genius device to use OpenDNS addresses:
See "Changing the DNS Server IP Address to an OpenDNS to speed things up" noted above on page 2.