

# Installation and Setup for the Cayan Genius PIN Pad Device

**Hardware:** Any Cayan Genius PIN Pad device included the following:  
Engage M400, Engage P400, MX915 v4, MX925 v4.  
For the Engage e285 Handheld, see page 5.

**Keystroke Software:** Keystroke POS – v8.00 Build 70 or later (02/27/19)

## Description of the Cayan Genius Device

The Cayan Genius accepts a variety of payments (Credit, Debit, Gift, EBT Cash, EBT SNAP, ApplePay, AndroidPay).

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.

## Connecting & checking the IP Address and Application Version on Cayan Genius device

**Connect the device to the network where it will be used. DO NOT attempt to set the Static IP somewhere else.**

The device is NOT directly attached to the computer. It is attached to the local area network via an Ethernet Network cable and must have access to the internet. All communication is done via TCP/IP between the workstation, the device, and Cayan. You can check the TCP/IP address of each Cayan Genius device the below steps

- On the “Genius by Cayan” idle screen, enter 000 on the Keypad
- Enter Password of 9416557 then the Green Enter button
- You should see the IP Address, Serial Number, and App Version. Please WRITE DOWN the IP Address assigned by the router

**NOTE: The App Version needs to be 6.5.5.1 or above (as of January 2024)**

## Setting up Static IP Address

Each Genius device on a network must have a unique IP Address and must be paired to the correct workstation. In many cases, your IP Router will assign a unique IP Address to each PIN Pad. On older networks, it may be required to switch from Dynamic IP to Static IP Address mode (see steps below for instructions).

To configure **Cayan Genius MX9XX** for Static IP you will want to follow these steps: (See next page for **Genius M400**)

- From the “Global Payments Integrated” screen, press 1, 5, and 9 together for 2 seconds and release. Wait 2 seconds
- Select(touch) ‘supervisor’ and enter the password “1166832” and press the Green Enter key
- Select ‘Administration’ from the menu, then ‘Communication’, then ‘Ethernet’, and then ‘eth0’  
**Note: A knowledgeable network technician can help choose another IP Address. Tip: From a Command Prompt, type IPCONFIG /ALL to find the computers Gateway, Subnet Mask, and DNS1 & DNS2. You can use the same info from the computer for these fields( but the IP Address must be unique). Make a note of the current IP Address assigned. You should use this IP Address unless a different IP is preferred.**
- Change DHCP to Static
- Enter a unique IP Address (i.e.,192 168 001 010 for example, padding numbers with zeros if needed)
- Enter the Subnet Mask (usually 255.255.255.000)
- Enter the Gateway Address
- Enter both DNS1 and DNS2 addresses
- When finished use the Red X and the PIN Pad will prompt you to Save Changes? Touch OK
- You may be prompted to “Configure Another Interface”, select NO
- Hit the Red X a few times, and select Exit
- Hit the ‘Reboot’ button. The Device should take a minute to reboot and then return to the “Global Payments Integrated” idle screen.

## Setting up Static IP Address (continued)

To configure the Static IP for the **Cayan Genius M400 (App Version 6.x or above)** you will want to follow these steps:

<https://help.globalpaymentsintegrated.com/1/payment-devices/genius/m400/how-do-i-configure-a-static-ip-address-on-my-genius-m400/>

*Tip: From an Administrator Command Prompt, type IPCONFIG /ALL to find the computers Gateway, Subnet Mask, and DNS1 & DNS2. The IP Address must be unique.*

## 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
- Select the 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 Technical Notes below)
- Leave Gratuity, Donations, and Discounts as (None) unless otherwise desired (see Gratuity 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 as set on the Genius device above at the computer where it will be used
- Each computer will retain its own IP address for the device.
- Click OK
- Answer No when the program prompts you "Parameters for Gratuity/Donations/Discounts should be set up. Would you like to set them up now?"

## 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 file MWGenius.xml located in the hidden C:\ProgramData\KeystrokePOS folder.

The value will be an XML tag named "<IPAddress>xxxx.xxx.xxx</IPAddress>".

**NOTE: If you have issues saving the IP Address, try using "GeniusIP=xxx.xxx.xxx.xxx" as a Startup Switch or as an entry in the WS#.INI files. This overwrites the XML file entries.**

## 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:

### 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.*

## Technical Notes (continued):

### 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 credit card payment. To change the payment order, use Shift-Del(Cut)/Shift-Ins(Paste) from Sales Payment Types list in Configuration Manager, under Tables.

### Line Item Display

Version 8.01 Build 18 added support for both 40 column displays (M400, MX915/925) and 16 column displays (P400). 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.

### 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.

### Changing the DNS Server IP Address to an OpenDNS to speed things up.

A Domain Name System Server is used to match domain names like http://transport.merchantware.net to an IP Address. Using an OPEN DNS Server will sometimes speed up the processing of the Cayan Genius device on a network.

**NOTE: Cayan and SBS recommend you set DNS1 to 8.8.8.8 and DNS2 to 8.8.4.4 on each device.**

To configure the Cayan Genius DNS Settings, follow these steps:

- From the "Global Payments Integrated" screen, press 1, 5, and 9 together for 2 seconds and release. Wait 2 seconds
- Select(touch) 'supervisor' and enter the password "1166832" and press the Green Enter key
- Select 'Administration' from the menu, then 'Communication', then 'Ethernet', and then 'eth0'
- Tap DNS1 and enter 008 008 008 008 and tap 'OK'
- Tap DNS2 and enter 008 008 004 004 and tap 'OK'
- When finished use the Red X and the PIN Pad will prompt you to Save Changes? Touch OK
- You may be prompted to "Configure Another Interface", select NO
- Hit the Red X a few times, and select Exit
- Hit the 'Reboot' button. The Device should take a minute to reboot and then return to the "Global Payments Integrated" idle screen.

## Technical Notes (continued):

### 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 cards 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 prompt 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.

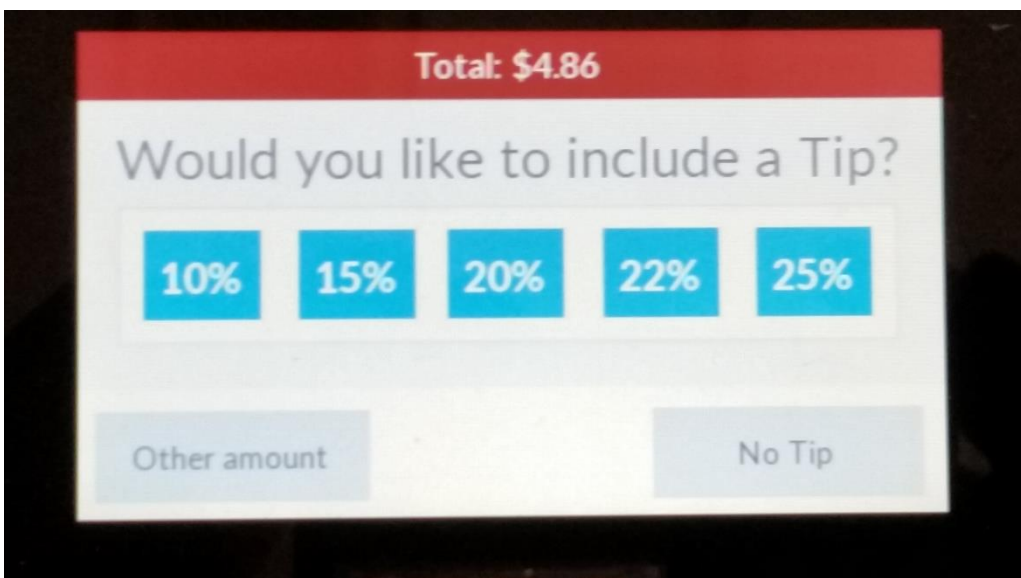
### Gratuity Setup in Keystroke POS for the Cayan Genius.

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.



## Setting up the Genius Engage e285 Handheld PIN Pad Device

### Turn on your Genius Engage e285

To turn on your Genius e285, complete the following steps:

**Step 1.** Insert the USB-C end of your USB cable into your Genius e285.

**Step 2.** Insert the USB-A end of your USB cable into your power adapter.

**Step 3.** Plug your power adapter into a power socket. Your Genius e285 should turn on.

– If your Genius e285 does not turn on, hold the **Enter** button for at least four seconds.

**Note:** Before you continue to set up your Genius e285, we recommend that you charge it overnight.

### Genius e285 Quick Start Guide:

<https://help.globalpaymentsintegrated.com/1/wp-content/uploads/sites/4/2023/04/Wireless-e285-QSG.pdf>

### Connect your Genius e285 to your network

**Step 1.** From the home screen, press **1**, **5**, and **9** on the keypad at the same time.

**Step 2.** Tap **supervisor** and use the keypad to type the password, then press **Enter**. The default password is **1166832**.

**Step 3.** Tap **Administration** and then tap **Communications**.

**Step 4.** Tap **WiFi**, then tap **WiFi Scan**. If your Genius e285's WiFi is turned off, the e285 prompts you to turn on its WiFi.

**Step 5.** Tap the network you want to connect your Genius e285 to.

– If successful, your device notifies you that it has saved the network.

– If unsuccessful, check that you are in range of your router. If you still can't connect to a network, contact our [Genius Support Team](#).

**Step 6.** Tap **OK** and then press the **Cancel** button.


**Step 7.** Tap **WiFi Configuration** and in the **PSK** field type the network password.

– To switch between capital letters and numbers, press the **#** button.

**Step 8.** Press the **Enter** button to save the network password.

**Step 9.** Press the **Cancel** button to return to the **WiFi** menu.

**Step 10.** Tap **WiFi interface IPv4** and make sure the AutoStart is set to On.

**Step 11.** In the **Status** field, tap  to connect to the network. When your Genius e285 connects to the network, the **Link status** shows **Connected**.

### Configure a static IP address

When your Genius e285's IP address changes, your Genius e285 can no longer communicate with the POS. To prevent this from happening, we recommend that you configure your Genius e285 to use a static IP address. To configure a static IP address, complete the following steps:

**Step 1.** Tap **WiFi Interface IPv4**.

**Step 2.** From the **Mode** drop-down menu, select **Static**.

**Step 3.** From the **Autostart** drop-down menu, select **On**.

**Step 4.** Provide values for the following fields:

– **IP address**


– **Broadcast**

– **Mask**

– **Gateway**

– **DNS 1**

– **DNS 2**

**Step 5.** In the **Status** field, tap  to connect to the network. When your Genius e285 connects to the network, the **Link status** shows **Connected**.

**Step 6.** Press the **Cancel** button four times to return to the **Main** menu.

**Step 7.** To return to the Genius home screen.

## Troubleshooting:

### Signature Capture

Larger units: M400, MX915, and MX925 can capture signatures on the device. Note: Beginning in 2024, signatures are not required on Credit Card transactions. By default, Cayan/GPI will turn off the Signature Capture function (setting minimum sale to \$500,000.00). If you want to require the customer to sign for a credit card transaction, please call Cayan/GPI Support at (888)249-3220. Have the PIN Pad serial number available when you call (found using the Test button in the PIN Pad settings in Keystroke).

### 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=xxxx.DAT** Command line switch (optional): Used to specify which Settings file to use.
- **MWGenius.xml** The file in C:\ProgramData\KeystrokePOS\ that store the Genius IP Address.
- **GeniusIP=** Command line switch (optional): Used to specify a different IP Address.

### 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 requesting new Transport Key: Invalid login credentials (when testing in Configuration Manager):

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:

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 MWGenius.xml file in the C:\ProgramData\KeystrokePOS folder (a hidden folder). Only 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.

### Firewall/Router Port Settings (consult with your system administrator to confirm that the following ports are open):

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

Confirm that the following hosts are available

**genius.merchantware.net**  
**transport.merchantware.net**  
**paycube.merchantware.net**

### To Test the Cayan Ports in Internet Explorer, use:

<https://genius.merchantware.net/v1/Reporting.aspx>

This will give you a "Mustang Reporting" page.