

Wedget

Magensa Application Installation and Operation Manual



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Table 0-1 - Revisions

Rev Number	Date	Notes
10	9/20/2019	Initial Release
11	11/20/2019	Updated Section 6 and the Examples of HTML input

Purpose of this document

The purpose of this document is to provide an overview of how to install and operate the Magensa Wedget application on both iOS and Android operating systems.

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1 Overview

Wedget™ is a developer tool/keyboard extension to simplify card data acquisition for mobile browsers and native applications for MagneSafe® secure card reader authenticators (SCRAs). The extension eliminates the need for complicated programming with SDKs making it simple to securely capture and process sensitive payment and ID card data.

For Contact EMV, Contactless EMV/NFC payments, Wedget and the configured MagneSafe device utilize MagTek's QwickDip technology. QwickDip was developed to support Quick Chip, M/Chip Fast, AMEX Quick Chip and Discover Quick Chip. It leverages a simplified transaction process, making it twice as fast as standard chip card transactions, but still delivers all of the security.

1.1 Features:

- Support for iOS (11.0 or newer) and Android (6.0 or newer)
- Reads Magnetic stripe data
- Reads Contact EMV data
- Reads Contactless EMV/NFC data
- Secures manually entered card/PAN data (DynaPro PED devices only)

2 Download and Install Wedget

Go to the App store or Google Play and download Wedget

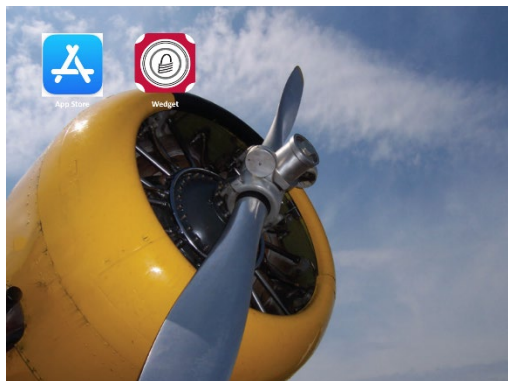


3 Configure Wedget

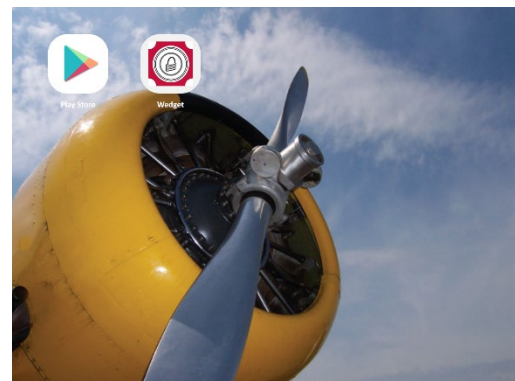
Launch Wedget and follow the onscreen directions.

- iOS (11.0 or newer) users tap on App Store icon on the main screen of your mobile device.
- Android (6.0 or newer) users tap on the Google Play icon on the main screen of your mobile device.
- Launch Wedget

iOS



Android

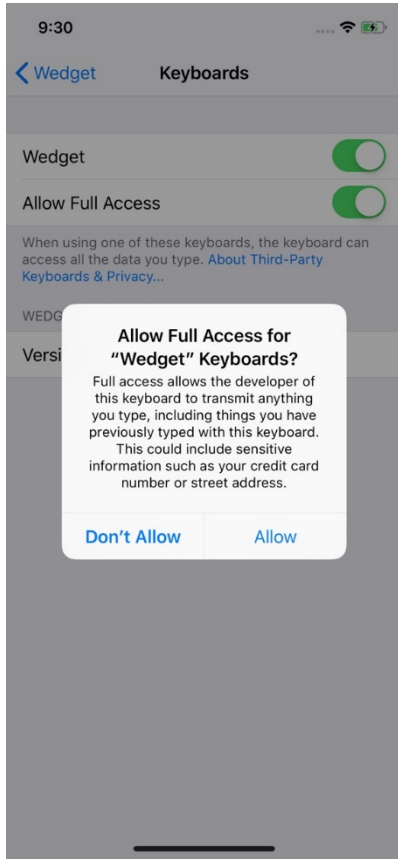


Note: Some screen shots shown throughout this document may vary slightly in appearance between iOS and Android. Any differences in application functionality between iOS and Android will be shown.

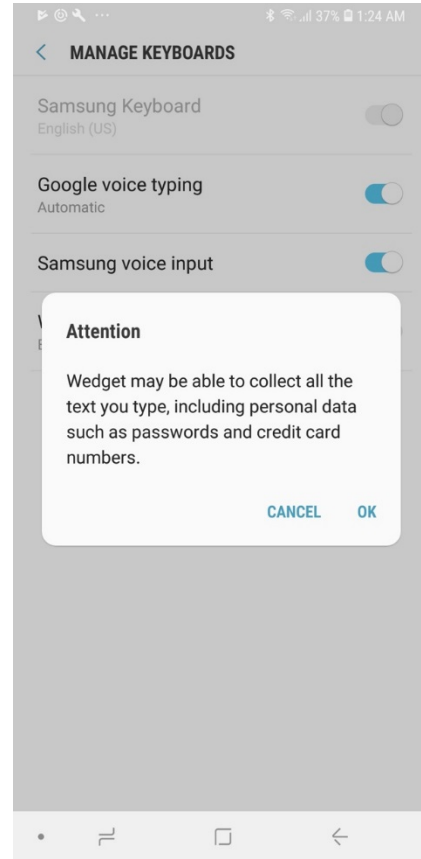
Example – The MagneSafe Reader Lists are different between iOS and Android since some devices have an Apple Lightning interface which is not supported by Android devices.

For iOS, allow **Full Access**. This is used to communicate with MagneSafe readers.
For Android, **enable** Wedget. This is used to communicate with MagneSafe readers.

iOS



Android



3.1 Choose a MagneSafe Reader

Select a MagneSafe reader.

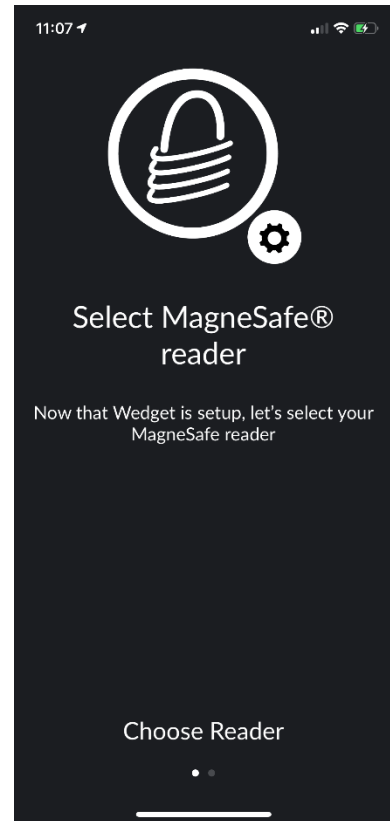
iOS (11.0 or newer)

- eDynamo (Bluetooth LE EMV/MSR Device)
- tDynamo (Bluetooth LE EMV/MSR/Contactless Device)
- iDynamo/cDynamo (Lightning MSR Device)
- kDynamo (Lightning EMV/MSR/Contactless Device)
- DynaPro Go (802.11 Wireless, Bluetooth LE EMV/MSR/Contactless PED Device)
- DynaPro Mini (Bluetooth LE EMV/MSR PED Device)
- DynaPro (Ethernet EMV/MSR/Contactless PED Device)

Android (6.0 or newer)

- eDynamo (Bluetooth LE EMV/MSR Device)
- tDynamo (Bluetooth LE EMV/MSR/Contactless Device)
- DynaPro Go (802.11 Wireless, Bluetooth LE EMV/MSR/Contactless PED Device)
- DynaPro Mini (Bluetooth LE EMV/MSR PED Device)
- DynaPro (Ethernet EMV/MSR/Contactless PED Device)

Note: In order to use Wedget, the MagneSafe Reader MUST be added to the Magensa Whitelist database. See [Section 3.2](#) for more information.

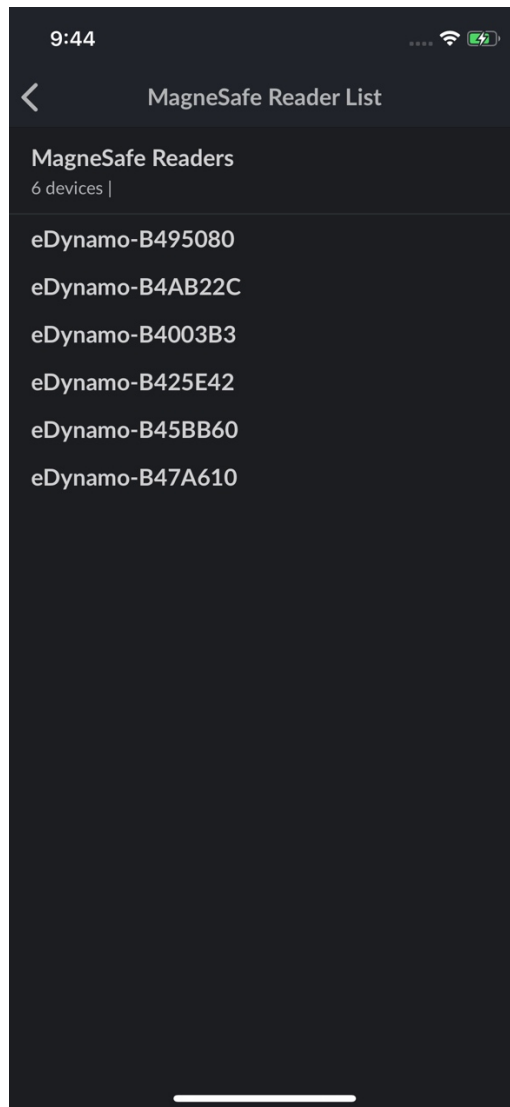
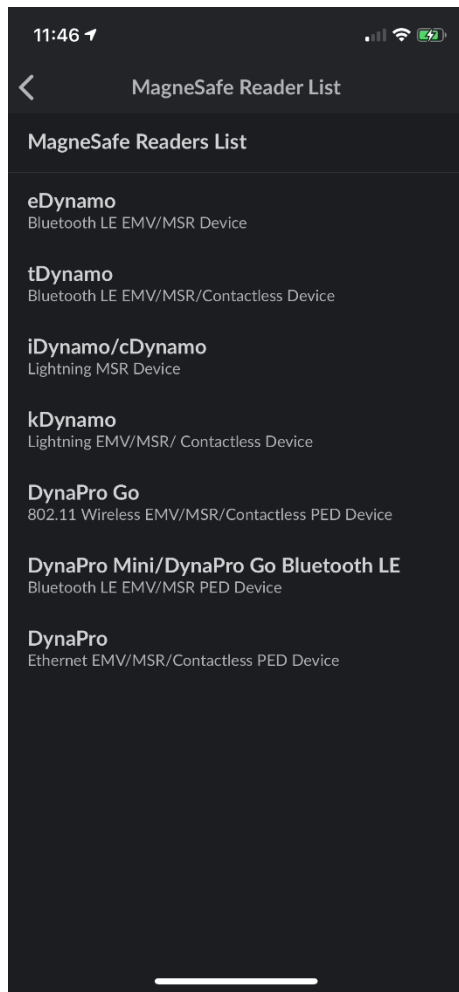


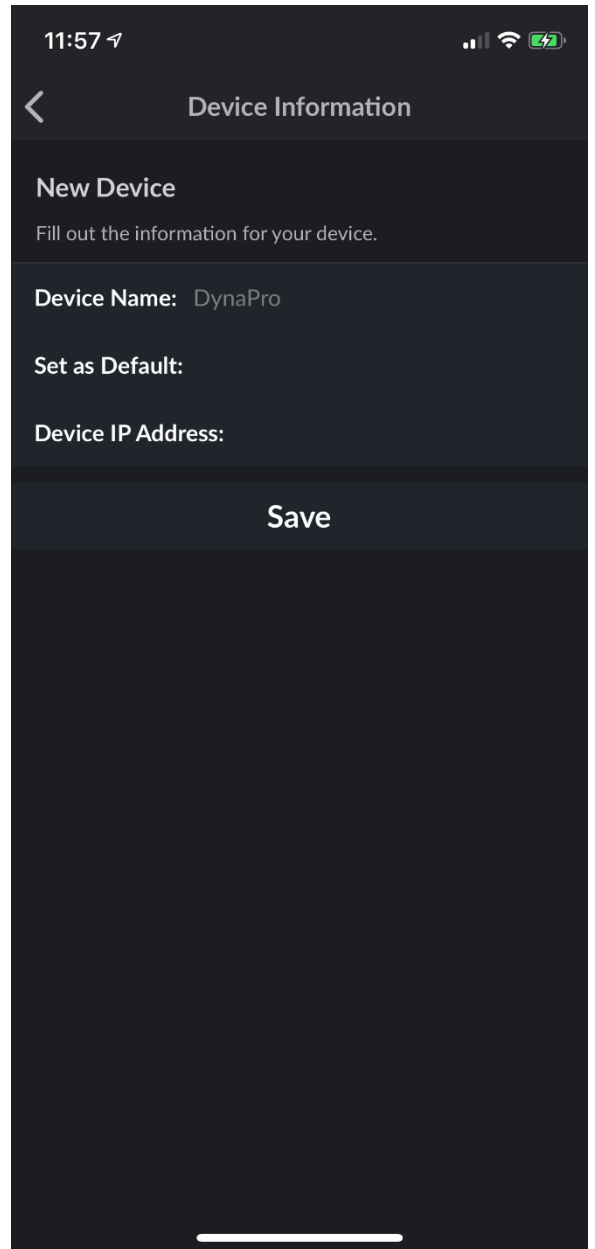
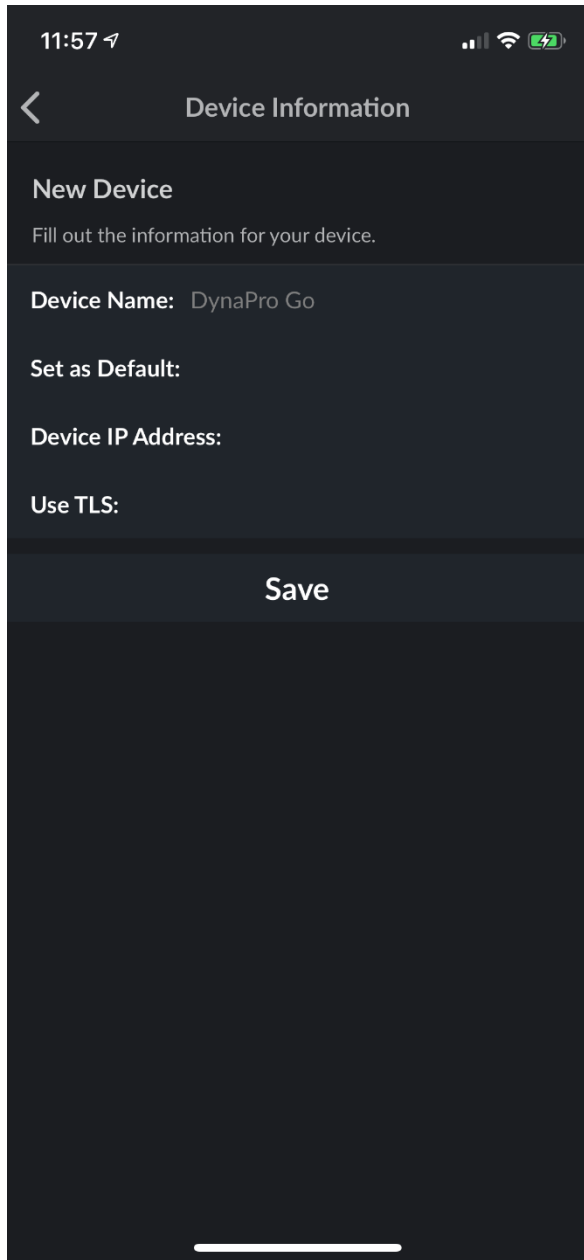
Select the New Device from the list. Note, the setup screen for each reader type may be different depending on its communications interface (ie – Bluetooth LE, Lightning, 802.11 Wireless or Ethernet). Your New Device can have a **Device Name**, if desired, for easy identification. The device marked “**Set as Default**” will be the device Wedget will attempt to use for a given transaction.

Make sure to press the **Save** button before exiting the Add New Device Screen.

If the desired device is a Bluetooth LE device, such as eDynamo, tDynamo or DynaPro Mini, you will see a listing of devices in pairing mode. Select the desired device, give it a Device Name, Set as default and Press Save.

DynaPro Go Device Info





DynaPro Go and DynaPro have additional attributes such as **Device IP Address**. DynaPro Go also has a button to enable **“Use TLS”** (This is TLS 1.2 and applies to DynaPro Go only).

Make sure to press the **Save** button before exiting the Add New Device Screen.

3.2 Magensa Whitelist Database

Wedget **REQUIRES** that the chosen MagneSafe Reader be added to the Magensa Whitelist database.

If the MagneSafe Reader is NOT found in the Whitelist's database, the Wedget user will see the following message when attempting to **SELECT** and **SAVE** a specific MagneSafe Reader:

"Uh oh! We can't seem to find your MagTek reader in our database. Please contact your Merchant Service Provider with your reader's serial number to complete the registration process."

This message indicates that the MagneSafe Reader has not been whitelisted to use Wedget. To add a reader, please contact the Merchant Service Provider and have them email wedget@magensa.net with the reader's serial number and their MagTek/Magensa Customer Code.

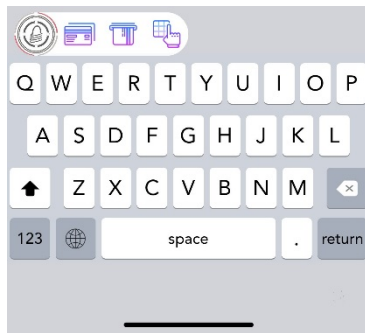
If you are a Merchant Service Provider that purchased the reader directly from MagTek, please contact your MagTek representative with the reader's serial number, as well as your MagTek/Magensa Customer Code.

4 Using Wedget to Read/Acquire Card Data

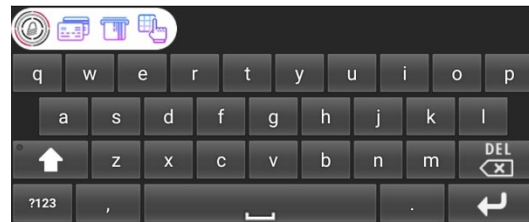
4.1 Keyboard Designs

Wedget can be installed onto iOS or Android devices. Due to the differences between the two operating systems and their respective UI standards, the Wedget Keyboard will look different between iOS and Android. Wherever possible, Wedget's primary functionality is consistent between the operating systems. Below are examples of Wedget's iOS and Android Keyboards.

iOS



Android



4.2 Keyboard icons

After Wedget is installed and configured on the mobile device, you can use Wedget's keyboard icons to manually initiate a read function:

Note: Read functions are based on Default device's capabilities.

- a. Read a Magnetic Stripe
- b. Read an EMV card (contact, contactless or NFC)
- c. Manually enter card/PAN data into a configured DynaPro PED device.



4.3 Create a text box

For a more automated solution, application developers simply need to create a text box at a logical point in their application workflow with a label such as “Pay” or “Credit Card.” Depending on what data is to be captured (magstripe, EMV or manually entered card/PAN data), the developer will insert the input value for the text box where the data is to be inserted:

- d. [SWIPE CARD] to arm the reader for a card swipe
- e. [REQUEST EMV] to arm the reader for a Dip or a Tap
- f. [START TRANSACTION] to arm the reader for swipe, dip or tap
- g. [SECURE MANUAL ENTRY] to arm the DynaPro PED device for manually entering card/PAN data.

Pressing or tapping the text box will initiate a connection to the configured MagneSafe device for the desired action request (ie. Swipe, Dip, Tap or Manual Entry).

The target application needs to monitor the text box for a carriage return which will deliver the encrypted card data/payload from the reader. Wedget has completed its task at this point - the encrypted card data/payload is parsed by the target application into a JSON format and can be passed along to MagTek’s Magensa Services for processing.

5 Test Wedget

Wedget has a built-in test function (“Test Wedget”) to confirm the MagneSafe reader works, responds to the requested read function and outputs the card data payload. In order to trigger an automatic read function when the Wedget keyboard is open, the following words need to be set as the input value for the text box where the data is to be inserted:

[SWIPE CARD]

Will arm the “Default device” for a read using only the magnetic read head (MSR).

[REQUEST EMV]

Will arm the “Default device” for a read using Dip or Tap.

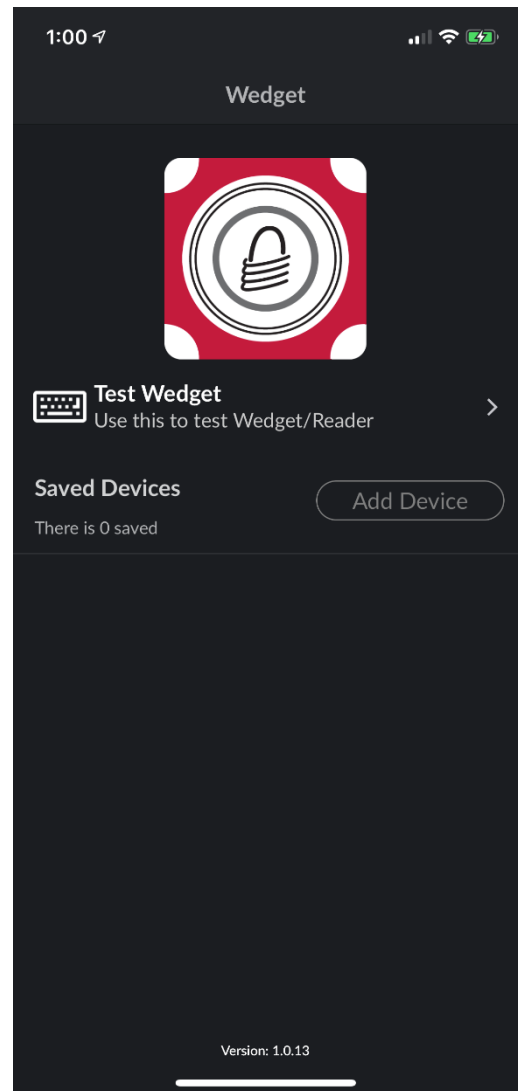
[START TRANSACTION]

Will arm the “Default device” for a read using up to all 3 read capabilities, depending on the “Default device” and its capabilities.

[REQUEST SECURE ENTRY]

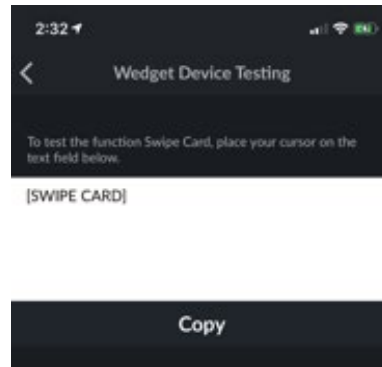
Will arm the “Default device” for a Secure Manual Entry of card/PAN data using a DynaPro PED device.

Note: Once card data is acquired, there is a copy button beneath each test function so the user can copy the encrypted card data/payload to the local clipboard. The data can then be pasted into any application for additional review of the payload.



This is the Test Wedget screen when the “Default device” is:

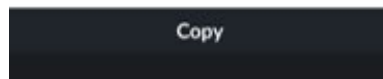
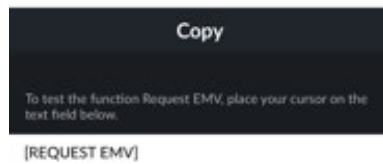
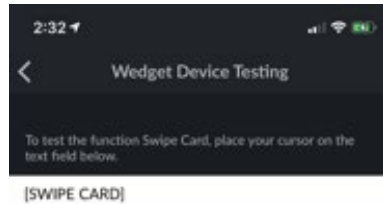
- iDynamo (iOS only. Does not apply to Android)
- cDynamo (iOS only. Does not apply to Android)



Note: Once card data is acquired, there is a **copy** button beneath each test function so the user can copy the encrypted card data/payload to the local clipboard. The data can then be pasted into any application for additional review of the payload.

This is the Test Wedget screen when the “Default device” is:

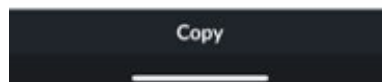
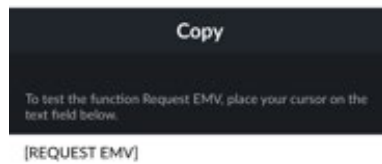
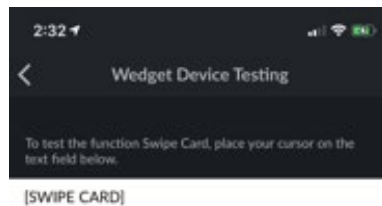
- iDynamo (iOS only. Does not apply to Android)
- cDynamo (iOS only. Does not apply to Android)
- eDynamo
- tDynamo
- kDynamo (iOS only. Does not apply to Android)



Note: Once card data is acquired, there is a **copy** button beneath each test function so the user can copy the encrypted card data/payload to the local clipboard. The data can then be pasted into any application for additional review of the payload.

This is the Test Wedget screen when the “Default device” is:

- iDynamo (iOS only. Does not apply to Android)
- cDynamo (iOS only. Does not apply to Android)
- eDynamo
- tDynamo
- kDynamo (iOS only. Does not apply to Android)
- DynaPro Go
- DynaPro Mini
- DynaPro



Note: Once card data is acquired, there is a **copy** button beneath each test function so the user can copy the encrypted card data/payload to the local clipboard. The data can then be pasted into any application for additional review of the payload.

6 Examples of HTML input

```
<script>
    function highlightText(t) {
        setTimeout(function() {
            t.setSelectionRange(0, 9999);
        }, 1);
    }
</script>

<input type="text" id="card-data" value="[SWIPE CARD]"
onClick="highlightText(this);"><br><br>
<input type="text" id="card-data" value="[REQUEST EMV]"
onClick="highlightText(this);"><br><br>
<input type="text" id="card-data" value="[START TRANSACTION]"
onClick="highlightText(this);"><br><br>
<input type="text" id="card-data" value="[REQUEST SECURE ENTRY]"
onClick="highlightText(this);"><br><br>
```

7 Examples of Payload Data

Wedget returns data by inserting text into an input box using JSON format. Each transaction will have a payload object that contains transaction data and a payload type with either MSR or EMV data unless there is an error. Wedget will add a carriage return at the end of the payload.

7.1 Card Swipe/Manual Entry data:

7.1.1 Input

```
<input type="text" id="card-data" value="[SWIPE CARD]">
<input type="text" id="card-data" value="[REQUEST SECURE ENTRY]">
```

7.1.2 Output

```
{
  "payLoad": {
    "maskedTrack3": "",
    "cardExpDate": "3012",
    "encryptedMagneprint": "ED05190B5B9D692BDD63D8D8D91F4587C8ED70877762326A29FDBC
9A8BE1F3F8A8A2C4AF55200181A21A3CEAF4507CDAA724A0DA2CDAF30A",
    "encryptedTrack3": "",
    "panLast4": "1111",
    "cardTrackStatus": "000001",
    "encryptedTrack2": "E5D505A60A4F9E79038BD6AC4AD2BB7B2530C4BF5E52A126E9AE1A485
9E1968A5EA27982F3C8157B",
    "maskedPAN": "4111110009001111",
    "magneprintStatus": "00000200",
    "deviceSerialNumber": "992D9868180E0F10",
    "tlvData": "FA820159DFDF251039393244393836383138304530463130F4820141DFDF300100DFD
F31392542343131313131303030393030313131315E202020205E3330313230303030303030303
0303030303030303030303030303030303030303030303030303030303030303030303030303
131313D33303132303030303030303030303030303030303030303030303030303030303030303
3EA79C0BC1D6B5A015DDA76C8CC49D20F507DDF94AAD0D2518EA4E6E5E4C580C4B7965343
D0E2303768085840EF68308BDA28C087FE495F16B63CFBCF7DDDFDF3928E5D505A60A4F9E79038
```


8 Frequently Asked Questions (FAQs)

Q: What is Wedget?

A: Wedget is a developer tool/extension to simplify card data acquisition for mobile browsers and native applications for MagneSafe® secure card reader authenticators (SCRAs).

Q: What operating systems support Wedget?

A: iOS 11.0 or newer and Android 6.0 or newer.

Q: What readers work with Wedget?

A:

iOS (11.0 or newer)

- eDynamo (Bluetooth LE EMV/MSR Device)
- tDynamo (Bluetooth LE EMV/MSR/Contactless Device)
- iDynamo/cDynamo (Lightning MSR Device)
- kDynamo (Lightning EMV/MSR/Contactless Device)
- DynaPro Go (802.11 Wireless, Bluetooth LE EMV/MSR/Contactless PED Device)
- DynaPro Mini (Bluetooth LE EMV/MSR PED Device)
- DynaPro (Ethernet EMV/MSR/Contactless PED Device)

Android (6.0 or newer)

- eDynamo (Bluetooth LE EMV/MSR Device)
- tDynamo (Bluetooth LE EMV/MSR/Contactless Device)
- DynaPro Go (802.11 Wireless, Bluetooth LE EMV/MSR/Contactless PED Device)
- DynaPro Mini (Bluetooth LE EMV/MSR PED Device)
- DynaPro (Ethernet EMV/MSR/Contactless PED Device)

Q: How do readers get added to the Magensa Whitelist?

A: To add a reader, please contact the Merchant Service Provider and have them email wedget@magensa.net with the reader's serial number and their MagTek/Magensa Customer Code.

Q: How is the card data secured?

A: Card data captured by Wedget is secured by the MagneSafe Security Architecture (MSA).

Q: What is the MagneSafe Security Architecture (MSA)?

A: The MagneSafe Security Architecture (MSA) is a digital identification and authentication architecture that safeguards consumers and their personal data. Designed to exceed PCI regulations, MSA leverages strong encryption, secure tokenization, counterfeit detection, tamper recognition, data relevance and integrity, and dynamic digital transaction signatures, which together validate and protect the entire transaction and each of its components. A key feature of the MSA is MagnePrint® card authentication, a patented, proven technology which reliably identifies counterfeit credit cards, debit cards, gift cards, ATM cards and ID cards at the point of swipe, before fraud occurs. MSA's multi-layer security provides unmatched protection and flexibility for safer online transactions.

Q: Which Magensa Services Support Wedget?

A: Decrypt and Forward (DAF), Magensa Payment Protection Gateway (MPPG), and Decrypt.

Q: Does Wedget support MagTek's audio jack readers?

A: Wedget does not work with aDynamo or uDynamo.

Q: Can I use Wedget with a physical keyboard attached to my iOS or Android device?

A: No, a physical keyboard overrides the soft keyboard utility which Wedget leverages.

Q: Is there a minimum character size the text box should be programmed to accept?

A: A typical payment transaction payload size can be as many as 4000 characters depending on the type of read function used.

Q: Does Wedget log keystrokes during its use for payments or other?

A: No, keystrokes never actually leave the phone/tablet and as a result, are never logged or stored by MagTek.