Taxamo

a VERTEX® company

TAXAMO ASSURE EXTENSION GUIDE

Manage your VAT in real-time, with one simple integration

PLATFORM: Magento 2 CE & EE

COMPATIBILITY: 2.3.0+

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VERSION: V1.0

About Taxamo

Taxamo is revolutionising tax management for businesses that sell online across the globe. Our solutions cover VAT, GST, and US sales tax, and are tailored to individual business needs. Since launch in 2010, we've managed billions of transactions globally.

Taxamo Assure is an on-demand, VAT service designed to support importation of low-value (physical) goods into the EU. Integrating into your customer checkout journey, Taxamo Assure controls the real-time VAT calculation, invoicing and VAT number validation on applicable sales. For IOSS sales, Taxamo Assure is liable for VAT, removing the need for you to register, file, and remit with Import One Stop Shop (IOSS).

Prerequisites

In order to use Taxamo Assure (hereafter referred to as 'the extension') with your Magento store, you must first have a Taxamo account. To set up a test (sandbox) Taxamo account for your test store, please go to: https://manage.sandbox.marketplace.taxamo.com/app/v2/self-signup/Taxamo
To set up a live (production) Taxamo account for your live store, please go to:
https://manage.marketplace.taxamo.com/app/v2/self-signup/Taxamo

You will require your Taxamo **API Token** as part of the extension configuration detailed below.

Note: *You will have two separate accounts and tokens in Taxamo; one for sandbox (test) mode and another for production (live) mode.*

Installation instructions

Composer Installation

Below you'll find the basic steps for the installation of the extension via composer. Please consult Magento documentation for more detailed instructions

https://devdocs.magento.com/extensions/install/

1. Place an order for the extension through the Magento Marketplace
2. Retrieve your access keys from the Magento Marketplace

   https://marketplace.magento.com/customer/accessKeys/
3. Insert the access keys into the auth.json file in your project.
4. Install the extension via composer with the command

   composer require taxamo/tax
5. Install the extension in Magento with the following CLI commands:

   php bin/magento setup:upgrade

   php bin/magento cache:flush

   php bin/magento cache:clean

   Finally, if Magento is run in Production mode, you must run the following commands:

   php bin/magento setup:di:compile

   php bin/magento setup:static-content:deploy

Magento Admin Installation

In versions of Magento 2 earlier than 2.3.7:

You can install the extensions via **System > Web Setup Wizard > Extension Manager,** like other extensions in the Marketplace. You will need to have your access keys on hand as you will be prompted to enter them.

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Configuring Taxamo Assure Extension

General Configuration

General Configuration can be found in Magento 2 in the admin panel under **Stores > Configuration > Sales > Tax**. The configuration settings will be under the **Taxamo** header on this page.

If you change any settings in the Taxamo configuration, these will only be updated after you have saved the new settings: press the **Save Config** button in the top right-hand corner of the page.

Inputting your API Token

Before configuring the extension you will need a Taxamo **API Token** (see Prerequisites). To test your API Token, enter it in the box provided and click **Test Credentials.**

If the API Token you have provided is correct, you will see a **'Credentials Valid'** message - as shown below; otherwise, you will see an error message to inform you to change the API token.

You can get the API token from your Taxamo account, found in the **Taxamo portal** under **Settings > API Access > View API Tokens > Reveal Token**.

Note: The API token for Sandbox (test) mode is in your Taxamo Sandbox account and the API token for Production (live) mode is in your Taxamo Production account.

Enable/Disable Taxamo

To enable/disable the extension you can either select **Yes** or **No** from the **Enable** dropdown that appears under the Taxamo header.

Enable - Yes: Once enabled, Taxamo will calculate VAT for any countries supported by the Taxamo Assure product i.e. currently the EU Countries. These countries are Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France (including Monaco for VAT purposes), Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain and Sweden. You need to select these in the Taxamo country configuration option (see Enabled Countries).

Enable - No: This will completely disable the extension. If the extension is disabled, Magento will revert to the standard tax calculations as configured within Magento.

Note: Disabling the extension via General Configuration does not remove the extension files from app>code. For this, you will need to use the module:disable command via the CLI.
If you need to enable the extension again you will need to re-install the extension.

Switching between Sandbox & Production Mode

The extension has two modes: a **Sandbox** mode and a **Production** mode. The default value is **Sandbox.** Whilst in Sandbox mode, test data is returned; whilst in Production mode, live data is returned. The mode can be toggled using the **Mode** dropdown selector in the configuration.

Note: In order for Taxamo to work in a live environment, it must be in Production Mode.

Ship From Details

In order to calculate tax correctly, Taxamo must understand where goods are being shipped from. A valid **Ship From Address - Postal Code** and **Ship From Address - Country Code** are required. Enter the **Ship From Address - Postal Code** manually and select the **Ship From Address - Country Code** from the dropdown list in the configuration. A single ship from location is currently supported.

Ship From Address - Postal Code [store view]	M45DL

The 'postal code' to use as the 'Ship From' address.

Ship From Address - Country Code [store view]	Great Britain and Northern Ireland ▾

The 'country' to use as the 'Ship From' address.

Enabled Countries

Taxamo will only calculate the tax related to countries for which it is enabled and for those available on the Taxamo Assure product. To enable Taxamo for a specific country, select that country from the multi select list. Use 'Ctrl/Cmd and click' to select multiple countries from the list.

Note: current support is for EU countries. These countries are Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France (including Monaco for VAT purposes), Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain and Sweden.

Enabled Countries [store view]

> Aruba
> Australia
> **Austria**
> Azerbaijan
> Bahamas
> Bahrain
> Bangladesh
> Barbados
> Belarus
> **Belgium**
> Belize

Specify the countries which Taxamo can be enabled for.

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Configuring Tax Liability Message

You can display a customer-facing message at checkout if Taxamo is unable to take liability for the tax. This **Tax Liability Message** will inform customers that additional VAT and customs charges may be due. You can edit this message as required, in the **Tax Liability Message** text area. In the case that Taxamo is not liable for the tax, it may be the responsibility of the seller or the buyer.

Note: This message will only show on the Checkout Payment & Review step when Taxamo is not liable and only when certain conditions are met. For full details of these conditions, see the '*Retrieving Tax from Taxamo*' section in this user guide.

Cron Settings

The Cron Expression fields define how regularly Magento should trigger the automatic sending/receiving of data between Magento & Taxamo. Three fields exist, as follows:

- **Store Tax Cron Expression:** Expression to define the schedule of Cron job for storing the transaction at Taxamo
- **Confirm Tax Cron Expression:** Expression to define the schedule of Cron job for confirming the transaction at Taxamo
- **Refund Tax Cron Expression:** Expression to define the schedule of Cron job for sending refund transactions to Taxamo

Cron timings for the three expressions can be edited in the configuration. By default, these are configured to run every 5 minutes automatically.

Note: It may take a number of minutes for changes to Cron settings to become effective, depending on the Cron scheduler within Magento.

Log Cleaning

To Enable/Disable **Debug Log,** select **Yes** or **No** from the dropdown menu.

When **Enable Debug Log** is set to **Yes,** errors can be logged in the log file. This means that if there are errors with the data that is being provided to Taxamo, the error message will be stored in the logs and will indicate the error that needs to be resolved to ensure the extension is working correctly. Additional options are available for cleaning this log file as follows:

- **Enable Log Cleansing:** When set to Yes, enabled logs are cleaned by a Cron job
- **Log Clean Cron Expression:** Expression to define the schedule of Cron job for log cleaning
- **Log Retention Days:** Number of days to retain logs for when cleaning is enabled

Using Taxamo Assure Extension

Displaying Tax to the customer

Product tax will either be retrieved from Magento or from Taxamo, depending on where the customer is on the website. This is because Taxamo calculates tax based on the entire basket and shipping address, rather than on a product-by-product basis.

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Tax values will be retrieved from Taxamo on the following pages:

- **Basket** (if the shipping address is known)
- **Checkout**

In all other instances, tax is retrieved from Magento.

Image: Screenshots showing the Tax display on the Basket (left) and Checkout (right)

Customer-facing Tax Liability Message

If the extension is enabled for a specific country but Taxamo *does not* have the liability for the tax on an order, the **Tax Liability Message** will be displayed to the customer. This message will appear beneath the Shipping Address & chosen Payment Method on the **Payment & Review** step of the **checkout**.

In these instances, the merchant (you) or the customer may be responsible for the tax. The customer may be liable to pay VAT upon receipt of their items. All existing tax amounts are removed from the order, to prevent the customer from paying twice.

The customer must confirm they have seen the message before they can place their order, by ticking the checkbox marked: **I have read and agree to the above**. This box displays directly beneath the custom message:

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VAT and customs charges may be due on this order

☐ I have read and agree to the above

If the customer attempts to place the order without confirming that they have read and understood the Tax Liability Message, an error message will appear at the top of the page. This will inform a customer that: **You must tick the box to agree and complete checkout**:

> ❌ You must tick the box to agree and complete checkout

Retrieving Tax from Taxamo

Tax is retrieved from Taxamo if the following conditions are met:

- The extension is enabled
- The shipping address is known and the shipping country matches one of the enabled countries in the configuration and the Taxamo Assure product supports this country
- The customer is on a Taxamo Enabled Page
- The customer's basket does not contain any Virtual Products - see also the section of the User Guide titled 'Product Types'

Whenever a customer updates their basket or customer details, the Taxamo extension will submit an API request and the tax values returned will be stored on the quote. The tax values provided by Taxamo will override any existing tax values that were associated with the order. Whilst Taxamo is enabled, the extension will prevent Magento's standard tax rules from being applied.

Taxamo Product Attribute

The extension creates the following product attribute:

- Attribute Name: Taxamo CN Code
- Attribute Code: taxamo_cn_code
- Type: Text (Note: numerical only)

This attribute is added to a **new attribute group** titled **Taxamo** and will automatically become part of the **Default attribute set**.

The attribute can be viewed in the Magento admin under **Stores > Attributes: Product**.

This attribute can be added to other attribute sets under **Stores > Attributes: Attribute Sets.**

When creating or editing a product (**Catalog > Products**), the attribute field can be found within the 'Taxamo' expandable section on the edit product form. It can be updated individually on a per product basis, using the Bulk Actions drop-down from the Catalog grid, or by using the CSV import.

By default, this attribute is not displayed on the front-end of the website.

CN Code is an optional attribute - if it's not populated for a product then the standard VAT is applied. See the troubleshooting questions for more information on the CN Code.

Attribute Code ↓	Default Label	Required	System	Visible	Scope
	cn	▾	▾	▾	▾
taxamo_cn_code	Taxamo CN Code	No	No	No	Store View

Image: Screenshot showing the taxamo_cn_code attribute in Magento

In the Taxamo online portal you can use the Product Classification tool to get the relevant CN code for your product.

Product Type Restrictions

This Taxamo extension will only register orders that contain **only physical products and the services associated with these such as shipping**. Orders containing **virtual products** are not supported by this extension. Therefore, whenever a virtual product is found in a basket, the Taxamo extension is effectively considered to be disabled.

Virtual products are considered to be any of the following product types:

● Virtual product type **(Note: this includes the Bundle product type where a virtual product has been selected as part of the bundle)**

● Downloadable product type

● Gift Card - Virtual type (commerce only) **(Note: Gift Card - Combined type is not included within these restrictions)**

If virtual products are added to a basket, no API call is made to Taxamo to check liability; as such, there will not be a Taxamo Transaction Key stored against the order. Further, since Taxamo is considered to be disabled in this scenario, the liability message will *not* be shown on the front-end. Instead, Magento tax is applied for any orders containing virtual products.

Viewing Taxamo Order details in Magento

When viewing orders in the Magento admin (**Sales > Orders > View Order**), if an order was registered with Taxamo there will be a section titled 'Taxamo' displayed beneath the Payment & Shipping information. This displays the following values returned from the Taxamo API:

- **Taxamo Confirmed** - Yes = The order has been registered with Taxamo
- **Taxamo Liable** - No = Taxamo has confirmed that it is not liable for tax on the order; or Yes = Taxamo has confirmed that it is liable for tax on the order
- **Transaction Key**
- **IOSS Number** - If Taxamo is liable and the sales are into an EU Country an IOSS number is returned. This needs to be supplied to your shipping provider / parcel carrier for that order.

Taxamo

Taxamo Confirmed	Yes
Taxamo Liable	Yes
Transaction Key	Pr9UZzgAAG84KJ2G8CmIBuZq2_Ydg1NdgRpvp-Q
IOSS Number	IM1234567890

Image: Screenshot showing the data returned from Taxamo and stored against the order in Magento

After a customer places an order that is registered with Taxamo, the order is *'stored'* in Taxamo, awaiting payment. At this point, a unique transaction key is returned and stored against the order, but the Taxamo Confirmed and Taxamo Liable values will remain set to 'No' as they haven't been determined yet.

Once full payment has been received for the order, a *'paid for'* confirmation is sent to Taxamo. The Taxamo Confirmed and Taxamo Liable values are then updated accordingly to either 'Yes' or 'No'.

Credit Memo (Refunds)

Taxamo needs to be notified of refunds associated with the orders that have been sent to their system. When you issue a Credit Memo for an order in Magento, an API request is sent to Taxamo to update them of the change. Refunds in Taxamo are associated with specific line item/s on the order which means 'Adjustment Refunds' and 'Adjustment Fee' changes in Magento are not supported.

Transactional Emails

Order Emails

- Magento is responsible for sending the Order emails to the customer after their purchase.
- By default, the Tax line item is displayed within the order totals section on the email. This will be populated by Taxamo where relevant.

Invoice Emails

- For orders that are registered with Taxamo, and where Taxamo is liable for the tax, Invoice emails are generated and sent automatically from Taxamo.
- For orders that are not registered with Taxamo, Invoice emails can be sent from within Magento.

Credit Memo Refund Emails

- For orders that are registered with Taxamo, and where Taxamo is liable for the tax, Credit Memo emails are generated and sent automatically from Taxamo. This displays a similar style as the Invoice Email.
  - In this case the 'Email Credit Memo' option is removed for Taxamo confirmed orders, when generating the Credit Memo within Magento.
- For orders that are not registered with Taxamo, Credit Memo emails can be sent from within Magento by selecting the 'Email Credit Memo' option when generating the Credit Memo.

INVOICE

Invoice #: FR2021-6-30-3
Invoice date: Jun 30, 2021
Tax point date: Jun 30, 2021
Place: The RDI Hub, Killarney Road, Killorglin, Co. Kerry, V93 KP68

Merchant Address details are displayed here (taken from the Billing address settings within your Taxamo account)

Taxamo Marketplace Ltd.
The RDI Hub
Killarney Road, Killorglin
Co. Kerry, V93 KP68
Ireland
VAT #: IE3764989CH

Provided to:

Customer Address details are displayed here (as supplied by the customer during checkout)

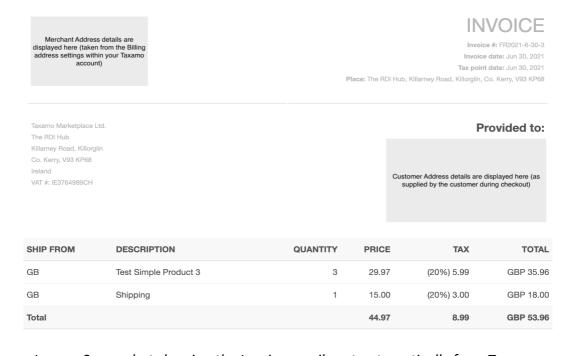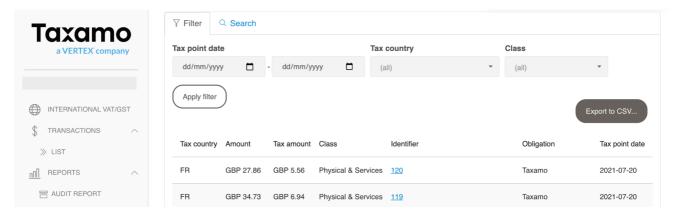| SHIP FROM	DESCRIPTION	QUANTITY	PRICE	TAX	TOTAL
GB	Test Simple Product 3	3	29.97	(20%) 5.99	GBP 35.96
GB	Shipping	1	15.00	(20%) 3.00	GBP 18.00
Total			44.97	8.99	GBP 53.96

Image: Screenshot showing the Invoice email sent automatically from Taxamo

Viewing Orders in Taxamo

Orders sent to Taxamo can be viewed within your Taxamo portal by going to **Transactions > List**. This list displays order details, tax details and obligation for tax; whether that be Taxamo, Seller or Buyer.

B2B Orders & Customer VAT numbers

Business customers can enter a VAT number in Magento as part of the Shipping Address, Billing Address or as part of their Customer Account - either during account creation or from within their customer account area.

The VAT number of the buyer will be validated by Taxamo for any B2B orders to supported countries.

When sending orders from Magento to Taxamo, the customer VAT number is retrieved from any of the above locations, with the order of precedence being Shipping Address, Billing Address and then Customer Account. The VAT number is then prefixed with a Country Code that is derived from the address supplied by the customer.

Note: If the VAT number already entered by the customer contains the same 2 characters that are derived for the Country Code, then they won't be added to it again. For example, if the customer has entered GB12345 and their Country Code is derived as GB, then GBGB12345 will not be sent in the API request, just GB12345.

Error Logging

When API requests are made to Taxamo and an error occurs, it is desirable to log what has happened in detail. The extension provides 2 forms of error logging:

- **Error logs**
- **Debug Logs**

The error log is written to in the following situations:

- If the Taxamo API returns a response code other than 2xx, or the Taxamo API returns an error message
- In the event of any sort of failure connecting to the Taxamo API
- If any error occurs relating to the extension

Error logs can be viewed in the admin view by going to **Stores > Taxamo: Logs**.

- The log file itself can also be found in the folder: var/log/taxamo-error.log
- If any errors have been logged in the last 24 hours, an admin notification message will also indicate how to view the log. This can be accessed by clicking the **Notification Bell** in the top right-hand corner, in the same place where other Magento notifications are displayed.
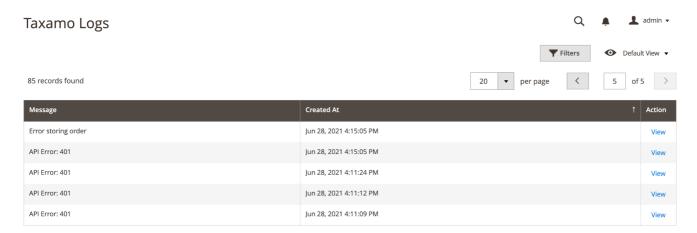
Taxamo Logs

Message	Created At ↑	Action
Error storing order	Jun 28, 2021 4:15:05 PM	View
API Error: 401	Jun 28, 2021 4:15:05 PM	View
API Error: 401	Jun 28, 2021 4:11:24 PM	View
API Error: 401	Jun 28, 2021 4:11:12 PM	View
API Error: 401	Jun 28, 2021 4:11:09 PM	View

85 records found — 20 per page — 5 of 5

Image: Screenshot showing a snippet of the Error log that can be viewed within Magento

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Taxamo Log #70264

Message	API Error: 400
Context	api_response: {"success":false,"errors":[{"type":"schema-validation-failed","message":"Validation failed: {:transaction {:transaction_lines [{:product_cn_code (not (\"(max-length 16)\" a-java.lang.String))} nil]}}"}],"requestId":"9958dd48-2d67-40e3-858e-8c0033317e45"} **error_type:** API ERROR **http_status:** 400
Created At	7/20/21, 11:07 AM

Image: Screenshot showing an error in the Error log that can be viewed within Magento

The debug log is only written to if it's enabled in the General Configuration. When enabled, the debug log will contain the following:

- Every request sent to Taxamo
- Every response from Taxamo

Debug logs can be viewed in the folder: var/log/taxamo-debug.log

Taxamo API

The requests & responses between Magento and Taxamo are handled by the Taxamo API client. The following API calls are made within the extension, for countries that are enabled:

- **Calculate Tax**
    - This request is triggered on the basket and checkout pages prior to the order being placed. It is used to determine whether Taxamo has the tax liability and, therefore, whether it will return a tax amount for the order.
    - If Taxamo returns a tax amount for the order, this is displayed on the basket/checkout on the front-end. If Taxamo is not liable for tax on the order, the Tax Liability Message is displayed.
- **Store Transaction**
    - This request is made even if Taxamo does not have liability for the tax on the order. The request is made prior to the order being created and payment being taken.
    - As a result, the order is registered in Taxamo and a transaction key is returned and stored against the order in the Magento admin.

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- **Confirm Transactions**
    - This request is made once the transaction key has been returned for the order and the order is marked as being 'paid' in Magento. I.e. This happens when the invoiced amount matches the order total.
    - It returns an IOSS number (if applicable) for the transaction and triggers the Taxamo Confirmed and Taxamo Liable flags, which are stored against the order in the Magento admin.
- **Refund**
    - This request is made if a Credit Memo refund is raised against an order in the Magento admin. It contains the details of all line items that are being refunded on an order.

Troubleshooting

When is Taxamo Enabled?

For the extension to be active, the following conditions must be met:
- The extension must be enabled on the particular store view
- An API key must be entered & must be valid
- At least one country must be enabled in the configuration settings
- All Ship From Address fields must be populated
- Magento's Multi-shipping option must **not** be enabled (https://docs.magento.com/user-guide/configuration/sales/multishipping-settings.html)

Why am I not receiving any Taxamo data back for orders?

There are a number of reasons why Taxamo transaction data is not returned for an order:
- The extension is not fully enabled. In this instance, please see 'When is Taxamo Enabled?' to confirm the requirements that must be met for the extension to be active
- Taxamo is not enabled for the shipping country associated with the order. If a country is not specified as part of the 'Enabled Countries' list, then Taxamo is not considered to be enabled for that country. Therefore the API call to Taxamo won't be triggered and no transaction data will be returned.

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- ○ ***Note:** You should only enable the countries for which the Taxamo Assure product supports.*
- The Taxamo API key is invalid. To check whether your Taxamo API key is valid, use the 'Test Credentials' button in the General Configuration.
- The order contains a Virtual product. See the section titled 'Product Types' for restrictions

How do I know if Taxamo is liable for the Tax on an order in my store?

- When viewing an order in the Magento admin (**Sales > Orders > View Order**) that was registered with Taxamo, a section titled 'Taxamo' will be displayed beneath the Payment & Shipping information. See section titled 'Viewing Orders' for more information.

What is a CN Code?

- The CN code (short for Combined Nomenclature) relates to the Harmonized System - HS CN Code; a standard set of codes used to classify goods in the EU and determine the relevant tax rate for a product.
- If a CN code is not supplied for a product, the standard tax rate is applied.
- You can use the tool provided by Taxamo to determine what code a product should have. You can access this tool from your Taxamo portal by going to **Product Classification** on the left-hand navigation.
- It is your (the merchant's) responsibility to populate this attribute for the products on your Magento website.
- If populated, the code is sent in the API request and stored against the transaction in Taxamo.

Restrictions

***It is assumed that your products are being shipped from outside the EU, into the EU.** It is also assumed that you have signed up for a Taxamo account and as per the Terms of Service you will provide Taxamo's IOSS number to your parcel carrier for the applicable IOSS sales*

- Returns - The extension is **not** expected to be used with the advanced returns module (RMA) in Magento 2 Commerce. To issue a refund you can use the Credit Memo functionality.

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- Credit Memo Refunds - <u>Adjustment Fees and Adjustment Refunds</u> are **not** submitted with the API request for any orders registered with Taxamo. This does not apply to any other orders where Taxamo is considered disabled e.g. orders containing virtual products or orders shipping to non-enabled countries.

- Shipping - Magento Multi-shipping is not supported by the extension. It is expected that a single ship from location is used for all orders.

- Gift Cards - Not currently supported by the extension. Includes; paying with a gift card that covers both partial order totals and the full order total.

- Currency Rates - Setting currency rates for display purposes is not supported by this extension.

Support

For additional support please contact Taxamo Technical Support on the following link

https://info.taxamo.com/support