



Payment module integration for OpenCart

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1. RELEASE NOTES

Version	Date	Comments
2.2.0	5/5/2021	<u>New features</u> <ul style="list-style-type: none">• Addition of the "Signature algorithm" parameter for the HMAC-SHA-256.• Addition of Spanish translations.
2.1.0	3/28/2017	Initial version

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2. MODULE FEATURES

- Immediate payment
- Payment in installments
- Multi-language compatibility
- Multi-currency compatibility
- Custom 3D Secure depending on the order amount
- Automatic redirection to the shop once the payment is made
- Definition of a minimum/maximum amount for each payment type
- Configuration of the order status in case of success / failure / cancellation
- Possibility to notify the Buyer in case of a refused or canceled payment
- Systematic registration of orders at the end of payment via a silent URL (Instant Payment Notification URL)

Features not available via the payment module:

- 1-click payment
- Oney 3x 4x payment
- Automatic update or orders OpenCart in case of validation, duplication, cancellation, refund, modification via the Merchant Back Office
- Update of deferred payment final result in OpenCart
- Update in OpenCart of an expired payment if a payment with manual validation has not been validated in time by the Merchant

3. READ CAREFULLY BEFORE GOING ANY FURTHER

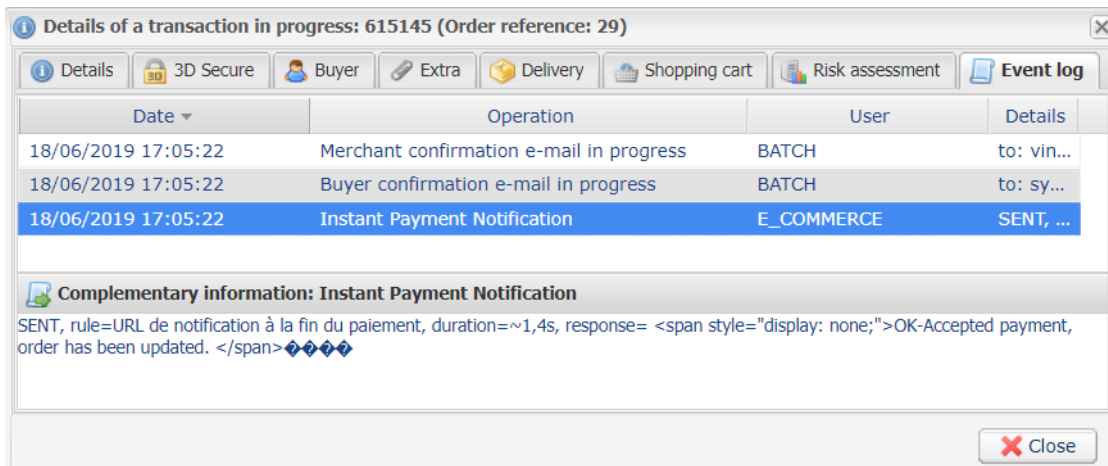
The most frequent error concerns the Instant Payment Notification URL. The Instant Payment Notification URL is the only way the Systempay gateway can notify you at the end of your payment. The chapter **Setting up the end of payment notification** must be read thoroughly and the provided instructions must be respected.

Frequent errors:

- **Your OpenCart shop is in maintenance mode**
- **Your Instant Payment Notification URL is protected by an .htaccess file**
- **You have blocked the IP addresses of the payment gateway**
- **You have not encoded the notification URL in the Merchant Back Office**

How to check that the Instant Payment Notification URL has been called:

Via the Merchant Back Office, display the payment details (double click), then go to the “**Event log**” tab.



Details of a transaction in progress: 615145 (Order reference: 29)

Details | 3D Secure | Buyer | Extra | Delivery | Shopping cart | Risk assessment | **Event log**

Date	Operation	User	Details
18/06/2019 17:05:22	Merchant confirmation e-mail in progress	BATCH	to: vin...
18/06/2019 17:05:22	Buyer confirmation e-mail in progress	BATCH	to: sy...
18/06/2019 17:05:22	Instant Payment Notification	E_COMMERCE	SENT, ...

Complementary information: Instant Payment Notification

SENT, rule=URL de notification à la fin du paiement, duration=~1,4s, response= OK-Accepted payment, order has been updated. ◆◆◆◆

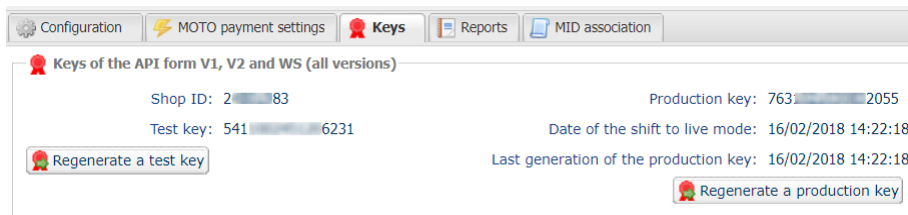
Close

4. PREREQUISITES

Before integrating the payment module, please make sure that you are in possession of the following elements:

- **Payment module file:** Systempay_OpenCart_2.0-2.2_v2.2.x.ocmod.zip
- **Your shop ID**
- **Test or production key**

The Shop ID and the keys are available in the Merchant Back Office (menu: **Settings > Shop > Keys**)



Reminder, your Merchant Back Office is available at this address:

<https://paiement.systempay.fr/vads-merchant/>

WARNING: All our payment modules are tested from a minimal PHP version, this version is visible from our documentary site:

If you have an older version, we invite you to contact the technical manager in charge of your site so that he updates the PHP version of the server. Thus, our support service will be able to assist you if you encounter a problem with our module.

Please note that the 7.0 version is no longer supported by PHP: <http://php.net/supported-versions.php>

5. INSTALLATION AND CONFIGURATION OF THE MODULE

5.1. Update

1. Go to **Extensions > Payments** in the OpenCart Back Office.
2. Search for the old version of the installed module and click **Uninstall (-)**.
3. Delete manually the `systempay.php` and `systempay_multi.php` files located in the following directory: `/admin/controller/payment/`
4. See next chapter to install the module.

5.2. Adding the payment module

The **Systempay** payment module can be added in two ways:

Automatic installation:

The first method consists in adding the payment module via the OpenCart Back Office.

1. From the OpenCart Back Office, go to the **Extension > Extension Installer** menu.
2. Click **Download**.
3. Select the file on your hard drive and click the **Open** button.
4. Click on the **Continue** button.

Manual installation:

The second method consists in copying the module via FTP.

1. Copy the **admin**, **catalog** and **system** directories present in the **upload** directory of the `Systempay_OpenCart_2.0-2.2_v2.2.x.ocmod.zip` file.
2. Paste all of these directories to the root of your website (in the **upload** directory if exists).

5.3. Installing the payment module

To install the **Systempay** payment module:

Standard payment:

1. Go to **Extension > Extensions**.
2. Choose the **Payments** extension type.
3. Search for the **Systempay - Standard payment** module.
4. Click the **(+)** button to install the module.

Payment in installments:

1. Go to **Extension > Extensions**.
2. Choose the **Payments** extension type.

3. Search for the **Systempay - Payment in installments** module.
4. Click the **(+)** button to install the module.

5.4. Configuring the payment module

To configure the payment module, go to **Extensions > Payments** then click **Modify**.

The payment module configuration is divided into several parts:

- **General configuration:** Concerns the general configuration of the module.
- **Standard payment:** Allows to enable and configure standard payments.
- **Orders:** Allows to configure the statuses and notifications of an order.

5.4.1. General configuration

Access to the payment gateway	
Shop ID	Indicate the 8-digit shop ID, available in your Merchant Back Office (Menu: Settings > Shop > Keys).
Test key	Specify the test key available via your Merchant Back Office (Menu: Settings > Shop > Keys).
Production key	Specify the production key available in your Merchant Back Office (Menu: Settings > Shop > Keys). Note that the production key will only become available after the test phase has been completed.
Mode	Allows to indicate the operating mode of the module (TEST or PRODUCTION). The PRODUCTION mode becomes available only after the test phase has been completed. The TEST mode is always available.
Signature algorithm	Algorithm used to compute the signature of the payment form. The algorithm must be the same as the one configured in the Merchant Back Office (Settings > Shop > Keys). If the algorithm is different, the parameter will have to be modified via the Merchant Back Office.
Instant Payment Notification URL	URL to copy in your Merchant Back Office (Settings > Notification rules > Instant Payment Notification URL at the end of the payment > Instant Payment Notification URL of the API form V1, V2 menu). For more information, see the chapter and the sub-chapters on Configuring the notification URL .
Payment page URL	This field is pre-populated by default: https://paiement.systempay.fr/vads-payment/

Payment page	
Default language	This option allows to choose the default language of the payment page in case the language of OpenCart is not supported by Systempay. If the language(s) used by the OpenCart is (are) implemented into Systempay, the payment page will be displayed in the language of OpenCart when the buyer clicks on "Pay".
Available languages	Allows to customize the language displayed on the payment page. The buyer will be able to select a language when he or she is redirected to the payment page. If you do not select any language, all languages will be displayed on the payment page. To select a language, press and hold the "Ctrl" key and click on the desired languages. <u>Available languages:</u> German, English, Chinese, Spanish, French, Italian, Japanese, Dutch, Polish, Portuguese, Russian, Swedish, Turkish.
Capture delay	Indicates the delay (in days) before the capture.

Payment page	
	By default, this parameter can be configured in your Merchant Back Office (menu: Settings > Shop > Configuration - section: Capture delay). It is recommended to not populate this parameter.
Validation mode	Back Office configuration: Recommended value. Allows to use the configuration defined in the Merchant Back Office (menu: Settings > Shop > Configuration section: validation mode). Automatic: This value indicates that the payment will be captured in the bank automatically without any action on the merchant's part. Manual: This value indicates that the transactions will require manual validation by the merchant via the Merchant Back Office. Warning: if the transaction is not validated by the merchant before the expiration date of the authorization request, it will never be captured in the bank. Remember to configure the Instant Payment Notification rule on an operation coming from the Back Office to update the order status in OpenCart.
Card types	This field allows to select the cards logo to be displayed on the payment page. Warning: The payment types offered to the buyer on the payment page depend on the contracts and options associated with your Systempay offer. It is recommended to leave this parameter empty.

Custom 3DS	
Managing 3DS	<ul style="list-style-type: none"> In 3DS1: Disables the 3DS1 process during an e-commerce payment. Requires the Selective 3DS1 option. <div style="background-color: #f0f0f0; padding: 10px; margin: 10px 0;"> <p>IMPORTANT</p> <p>This feature will become obsolete as soon as the 3DS1 version is no longer supported by the networks.</p> <p>As of October 2020, issuers can refuse the transaction if 3D Secure authentication has not been performed.</p> <p>This behavior is called "Soft Decline".</p> <p>To reduce the number of rejected payments, the payment gateway automatically makes a new payment attempt with 3D Secure authentication, when possible.</p> </div> <ul style="list-style-type: none"> In 3DS2: Allows to request authentication without interaction (frictionless). Requires the Frictionless 3DS2 option. <ul style="list-style-type: none"> For payments made in euro, if the amount is lower than €30, a request for frictionless is transmitted to the DS. If the request for frictionless is accepted by the issuer, the merchant loses the payment guarantee. For payments made in euros, if the amount is greater than €30, the value transmitted by the merchant is ignored and the management of cardholder authentication is delegated to the gateway. For payments made in a currency other than euro, a request for frictionless is transmitted to the DS.

Return to shop	
Automatic redirection	This option allows to automatically redirect the buyer to the merchant website. This option depends on the following settings. This option is disabled by default.
Time before redirection (success)	If the automatic redirection option is enabled, you can define the delay in seconds before your buyer is redirected to your shop in case of a successful payment.
Message before redirection (success)	If the automatic redirection option is enabled, you can define the message that will appear on the screen following a successful payment before your buyer is redirected to the shop. The default message is: "Redirection to the shop in a moment".
Time before redirection (failure)	If the automatic redirection option is enabled, you can define the delay in seconds before your buyer is redirected to your shop in case of a failed payment.

Return to shop	
Message before redirection (failure)	If the automatic redirection option is enabled, you can define the message that will appear on the screen following a failed payment before your buyer is redirected to the shop. The default message is: "Redirection to the shop in a moment".
Return mode	During the redirection to the shop, these parameters are returned to the shop in GET or POST modes. The GET mode is more convenient for the buyer as it allows to prevent the browser from displaying a pop-up window that indicates that the buyer is leaving an https environment for an http environment which obliges the buyer to click on "Accept" to return to the shop.

Once you have completed the configuration, click **Save**.

5.4.2. Standard payment

Module configuration	
Activation	In order to enable the payment method, select Enabled . This mode is set to Enabled by default.
Order	If you offer several payment methods, enter a number in the Sort order field to determine the position of this payment method. The payment methods appear in ascending order according to the Sort order value.
Payment area	Define the payment area to which this payment method will apply. The All value means that the module applies to all areas.
Logs	Allows to enable or disable module logs. This parameter is enabled by default.

Restrictions	
Minimum amount	This field defines the minimum amount for which you wish to offer this payment method.
Maximum amount	This field defines the maximum amount for which you do not wish to offer this payment method.

Once you have completed the configuration, click **Save**.

5.4.3. Orders

Order status	
Order status in case of success	Select the order status from the list of accepted payment statuses.
Order status in case of failure	Choose the order status from the list of declined payment statuses.
Order status in case of cancellation	Choose the order status from the list of cancellation by the buyer statuses.
Notify the buyer in case of declined payment	Select Yes if you want to notify the buyer by e-mail in case of a declined payment.
Notify the buyer in case of cancellation	Select Yes if you want to notify the buyer by e-mail in case of cancellation.

Once you have completed the configuration, click **Save**.

5.5. Payment in installments

To install the installment payment module, go to **Extensions > Payment** and click the **install (+)** button.

Then, click **Modify** to access module configuration.

Installment payment module is configured in the same way as the standard payment module, except that it is also possible to configure the payment option in the payment in installments tab.

The additional parameters are:

Payment options	
First installment	Amount of the first installment, expressed as a percentage of the total amount. Example: For an amount of EUR 100 in 3 installments, you can set the percentage of the first payment at 50% of the amount. This means that the amount of the first installment will be EUR 50 and that the two others will be of EUR 25. For 50% enter 50 . If you want the amount of every installment to be the same, leave this field empty.
Number	Number of installments: 3 for payment in 3 installments 4 for payment in 4 installments etc.
Period	Period (in days) between each installment.

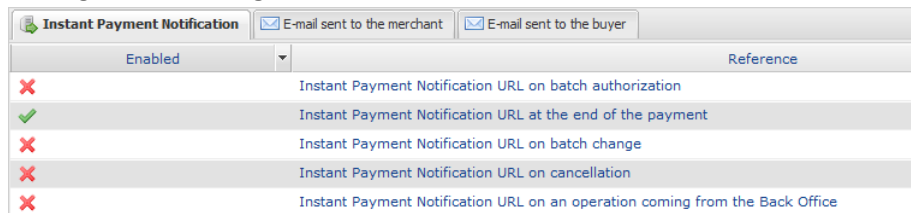
Once you have completed the configuration, click **Save**.

6. SETTING UP THE INSTANT PAYMENT NOTIFICATION URL

The Merchant Back Office provides several types of notifications. They allow to manage the events that will generate a call to the merchant website and to configure the URL of the contact page.

To access notification rule management:

1. Sign in to: <https://paiement.systempay.fr/vads-merchant/>.
2. Go to the following menu: **Settings > Notification rules.**



Instant Payment Notification		<input checked="" type="checkbox"/> E-mail sent to the merchant	<input checked="" type="checkbox"/> E-mail sent to the buyer
Enabled		Reference	
✗	Instant Payment Notification URL on batch authorization		
✓	Instant Payment Notification URL at the end of the payment		
✗	Instant Payment Notification URL on batch change		
✗	Instant Payment Notification URL on cancellation		
✗	Instant Payment Notification URL on an operation coming from the Back Office		

Figure 1: Notification rules

Right click > Enable the rule if a red cross appears in the **Enabled** column of the following rules:

- Instant Payment Notification URL at the end of the payment
- Instant Payment Notification URL on cancellation

6.1. Setting up the Instant Payment Notification

This notification is required to communicate the result of a payment request.

In your Merchant Back Office, you must set up a URL that will be systematically called after a payment. It will inform the merchant website of the payment result even if your client has not clicked on return to the shop.

This parameter is called Instant Payment Notification URL at the end of the payment.

To set up this notification:

1. Right-click **Instant Payment Notification URL at the end of the payment**.
2. Select **Enable the rule**.
3. Right-click **Instant Payment Notification URL at the end of the payment** once again.
4. Select **Manage the rule**.
5. Enter the following URL in the fields **URL to call in TEST mode** and **URL to call in PRODUCTION mode (Notification URL of the Hosted payment page V1, V2 section)**: The URL to copy is present in the module configuration (**Notification URL**).

The URL must resemble the one below:

<http://www.your-domain.com/index.php?route=payment/systempay/callback>

Replace **your-domain.com** with the domain name of your website.

6. Enter the **E-mail address(es) to notify in case of failure**.
7. To specify several e-mail addresses, separate them with a semi-colon.
8. Set up the parameters for **Automatic retry in case of failure**.

This option allows to automatically send notifications to the merchant website in case of failure (up to 4 times).

A notification will be considered as failed if the HTTP code returned by the merchant server is not on the following list: **200, 201, 202, 203, 204, 205, 206, 301, 302, 303, 307, 308**.

Automatic retry does not apply to notifications manually triggered via the Merchant Back Office.

Call attempts are scheduled at fixed intervals every 15 minutes (00, 15, 30, 45). After each failed attempt, a notification e-mail is sent to the e-mail address specified earlier.

9. Save the changes.

6.2. Setting up notifications in case of abandoned or canceled payments

The payment gateway can systematically notify the merchant website:

- When the buyer abandons/cancels a payment - via the **Cancel and return to shop** button.
- When the buyer has not completed the payment and the payment session has expired.

The maximum length of a payment session is 10 minutes.

To set up this notification:

1. Right-click **Instant Payment Notification URL on cancellation**.
2. Select **Manage the rule**.
3. Enter the **E-mail address(es) to notify in case of failure**.
4. To specify several e-mail addresses, separate them with a semi-colon.
5. Set up the parameters for **Automatic retry in case of failure**.
This option allows to automatically send notifications to the merchant website in case of failure (up to 4 times).
6. Enter the following URL in the fields **URL to call in TEST mode** and **URL to call in PRODUCTION mode (Notification URL of the Hosted payment page V1, V2 section)**:
`http://www.your-domain.com/index.php?route=payment/systempay/callback`
Replace **your-domain.com** with the domain name of your website.
7. Save the changes.
8. Once again, right-click **Instant Payment Notification URL on cancellation**.
9. Select **Enable the rule**.

6.3. Testing the Instant Payment Notification URL

In order to make sure that the Instant Payment Notification functions correctly, follow these steps:

1. Make sure that your URL is available online: your shop must neither be **in maintenance mode** nor be protected by an .htaccess file.
2. Make sure that your notification URL is available without any redirection.
 - a. To do this, paste your notification URL to the address bar of your browser and launch the search.
 - b. Make sure your URL did not change.

If your URL has changed, for example from "*http*" to "*https*" or "*http://abc.net*" to "*http://www.abc.net*", it means a redirection is active on your website. Then, copy the URL from the address bar and modify the URL filled in the configuration of all notification rules.
3. Make sure that the "Automatic redirection" option is disabled in the payment module settings.
4. Check that the **Instant Payment Notification URL at the end of payment** is populated in the Merchant Back Office (see above).
5. Make an order on your website and proceed to payment.
6. **Do not click on** "Return to shop" at the end of payment and close the current tab of your browser.
7. Make sure that the order has been created in the **Sales > Orders** menu of the OpenCart Back Office.

If the order has not been created in the OpenCart Back Office, this means that the call has failed.

If the payment gateway is unable to access the URL of your page, an e-mail will be sent to the shop administrator.

It contains:

- The HTTP code of the encountered error
- Parts of error analysis
- Its consequences
- Instructions to resend the notification to the URL already specified above from the Merchant Back Office

7. RENAMING THE PAYMENT METHOD

When the buyer is on the payment method selection page, by default, the Systempay module will display:
Payment by credit card.

It is possible to personalize this label to display, for instance: *Card payment with Systempay*

For this, open the systempay.php file, located in: Catalog\language\french\payment

Replace **Payment by credit card** by the desired label:

```
$_['text_systempay_title'] = 'Card payment with Systempay';
```

```
$_['text_systempay_multi_title'] = 'Card payment in %s installments with Systempay';
```

8. PROCEEDING TO TEST PHASE

Once the payment module has been configured and you have specified the IPN URLs, you can move on to test phase in order to generate the production key.


Different cases of payments can be simulated by using test card numbers specified on the payment page. The Merchant will be able to test all 3D Secure authentication results (if the Merchant is enrolled and 3DS is not disabled).

The list of the tests to perform for generating the production key is provided in the Merchant Back Office, **Settings > Shop > Keys** menu.


 **Tests control**

Here is a summary of the tests performed up to now.
 You must perform a valid payment for each row in the table below.
 * manual payments are not taken into account ;
 * test payments are deleted after 30 days ;
 * the vads_page_action parameter must be set to PAYMENT or REGISTER_PAY.

CB	Mastercard	Maestro	Visa Electron	Payment date	Test status
4970100000000014	5970100300000018	5000550000000029	4917480000000008		✘
4970100000000055	5970100300000067	5000550000000052	4917480000000057		✘
4970100000000063	5970100300000075	5000550000000060	4917480000000065		✘
4970100000000071	5970100300000083	5000550000000078	4917480000000073		✘

 Refresh the table

The "Generate the production key" button below will become operational once you have successfully completed all the required tests.
 Click on the Refresh the table button to update the test progress.



If your store does not have the test control table, it is not necessary to perform tests before going into production. You can directly click the **Generate production key** button to go into production. However, we recommend to make some payment tests to make sure that the payment solution is correctly integrated.

Each row of the list contains card numbers associated with the same scenario (i.e. 2 accepted payments and 2 refused payments).

Each column corresponds to a different card type: CB/VISA, MASTERCARD, MAESTRO, VISA ELECTRON.

To perform the test phase:

1. Make an order on your merchant website as if you were one of your buyers.
2. Select the payment method "**Payment by credit card**".
3. Once redirected to the payment page, select the card type of your choice.
4. Refer to the list of tests to identify the card number to use.
5. Once a test has been validated, its status is updated on the list. Click the **Refresh the table** button if the status has not been updated automatically.
6. Once the 4 tests have been validated, the **Generate production key** button becomes available.

Tests control

Here is a summary of the tests performed up to now.
You must perform a valid payment for each row in the table below.
* manual payments are not taken into account ;
* test payments are deleted after 30 days ;
* the vads_page_action parameter must be set to PAYMENT or REGISTER_PAY.

CB	Mastercard	Maestro	Visa Electron	Payment date	Test status
4970100000000014	5970100300000018	5000550000000029	4917480000000008	03/01/2019 10:53:24	✓
4970100000000055	5970100300000067	5000550000000052	4917480000000057	03/01/2019 10:55:29	✓
4970100000000063	5970100300000075	5000550000000060	4917480000000065	03/01/2019 10:56:32	✓
4970100000000071	5970100300000083	5000550000000078	4917480000000073	03/01/2019 10:57:39	✓

[Refresh the table](#)

All the required tests have been successfully completed. You can now generate the production key by clicking on the below button.

[Generate the production key](#)

7. Click the **Generate production key** button and accept the notification messages that will appear.

The production key is now available.

9. SHIFTING THE SHOP TO PRODUCTION MODE

After you receive a confirmation e-mail informing you that a key has been generated, you can configure the payment method by following the steps below:

- Retrieve the production key available in the Merchant Back Office (**Settings > Shop > Keys**).
- In the module configuration parameters:
 - Populate the **Production key** field.
 - Switch from TEST to PRODUCTION mode.
 - Save the changes.
- Make sure that you have specified the Instant Payment Notification URL in production mode, as described in the chapter **Setting up the Instant Payment Notification URL**.

Once the production parameters have been configured for your store, we recommend to make a real payment to make sure that your banking contract is functional.

You will then be able to cancel the payment via the Merchant Back Office.

Note on the production key:

For security reasons, this key will no longer be visible as soon as the first transaction in production mode is made in your shop.

Note on the TEST mode:

Once your shop is in production mode, the TEST mode remains available.

To work in test mode, follow the steps below:

- Switch from PRODUCTION to TEST mode.
- Make sure that the **Test key** is correct.
- Save the changes.

10. OBTAINING HELP

Looking for help? Check our FAQ on our website

<https://paiement.systempay.fr/doc/en-EN/faq/sitemap.html>

For any technical inquiries or if you need any help, contact [technical support](#).

To help us process your requests, please specify your Shop ID in your query (an 8-digit number).

This information is available in the “registration of your shop” e-mail or in the Merchant Back Office (**Settings > Shop > Configuration**).