

Paypal Express Checkout

PayPal Express Checkout Integration Guide v.3.6.0



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1 What is PayPal Express Checkout?

PayPal Express Checkout is a means of integrating PayPal that allows you to break down the financial transactions into different steps: authorisation – data capture – refund, etc.

In addition to this, PayPal Express Checkout also allows the identification step to be separated from the financial transaction (payment step). This feature enables you to perform the identification step much earlier on in the order process and use the identification result to retrieve the customer's address as registered in the customer's PayPal account.

2 PayPal Account Configuration

You must set up your PayPal (Business) account to allow our system's API user to access your account.

To grant API access to our system's API user, you need to log on to your PayPal account:

REMARKS

- This step is obligatory. If your PayPal account is not properly configured, you will not be able to configure PayPal on your PostFinance account.
- The actual structure and behaviour of the PayPal back office may differ from the description below.

- In the top menu, select "More" and then "Settings"
- In the "Selling online" section, click "Update" next to "API Access"
- Click the "Grant API Permission" link
- Enter the PostFinance API user name: *"support_api1.v-psp.com"* in the "Third Party Permission Username" field and click "Lookup"
- Tick the following boxes:
 - *Use Express Checkout to process payments*
 - *Issue a refund for a specific transaction*
 - *Authorize and capture your PayPal transactions*
 - *Obtain information about a single transaction*
- Once the boxes are ticked, click "Add".

You can now configure PayPal Express Checkout in your PostFinance account.


3 PostFinance Account Configuration

You must configure PayPal via the "Payment methods" link in your PostFinance Account. The activation of the payment method will be handled by our customer care Merchanthelp.

Enabling or disabling the "Direct sale" button in Express Checkout allows users to choose between working in two stages (authorisation and data capture) or in just one (direct sale: automatic data capture by our system when a valid authorisation is available).

I already have a PayPal account

PayPal account e-mail address:

 Express Checkout

Direct sale: ☒

When API permission has not been granted and you want to configure Express Checkout in your account, the following error message will be displayed:

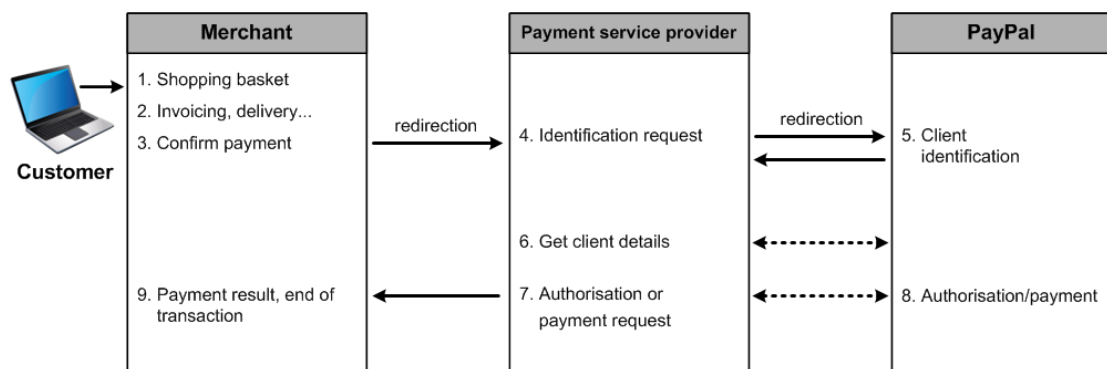
"Error test merchant config for Paypal ExpressCheckout, probably API access to Paypal merchant account was not authorised by the Merchant"

4 Merchant Integration

You can integrate PayPal Express Checkout to split the identification and the transaction steps (see [Splitting identification and payment](#)) or you can have the identification and the transaction in one step (see [Identification and transaction in one step](#)).

4.1 Identification and transaction in one step

The following workflow represents a transaction with PayPal Express Checkout for merchants who do not split the identification and the transaction (payment) steps:



You must send at least the following hidden fields (general e-Commerce parameters) in the redirection to `orderstandard.asp` / `orderstandard_utf8.asp`:

Field	Explanation
PSPID	Merchant affiliation name in our system
ORDERID	Merchant order number (merchant reference)
AMOUNT	Amount to be paid (MULTIPLIED BY 100)
CURRENCY	Order currency in ISO alpha code.
LANGUAGE	Customer language
OWNERADDRESS	Address
OWNERTOWN	Town or city
OWNERZIP	Postcode / ZIP
OWNERCTY	ISO country code (BE, FR, US, etc.)
DEVICE	If the cardholder is using a mobile device (such as an iPhone), you may send the "mobile" value. Our system does NOT identify the device.

More information about these fields can be found in your PostFinance account. Just log in and go to: Support > Integration & user manuals > Technical guides > Parameter Cookbook.

On submission of the hidden fields, the customer is displayed our secure payment page with an overview of the possible payment methods that are activated in your account. He can then select PayPal.

If you want the customer to select the payment method PayPal on your website instead of on our payment page, you must send us the value "PayPal" with the additional PM hidden field. On submission of the hidden fields, we will forward the customer directly to the PayPal website. The customer will be redirected to the PayPal login screen, where he will be able to identify himself and verify the payment.

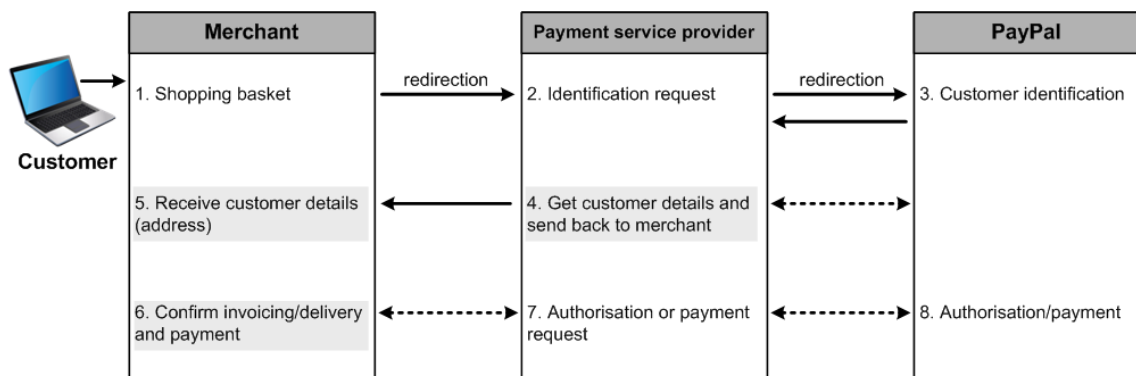
Important note on the PayPal cancellation button

The cancel button on the PayPal Express Checkout page does not cancel the transaction on the PostFinance payment page; by default it takes the customer back to the payment method selection on our payment page, OR it redirects the customer to your own payment method selection page by using the "BACKURL" or back button configuration.

You can configure the BACKURL in your PostFinance account, via Configuration > Technical information > Payment page > "Back button redirection", and/or you send it along with the other hidden fields to the payment page. In this last case, the URL in the "Back button redirection" (if entered) will be overwritten.

4.2 Splitting identification and payment

The following workflow represents a transaction with PayPal Express Checkout where the identification and payment steps are split:



4.2.1 Step 1: Identification request

This first step occurs on your website between the shopping basket confirmation and the collection of the delivery details. You need to display a PayPal pay button which redirects the customer to the e-Commerce interface.

You must send the following additional hidden fields behind the pay button in the redirection to `orderstandard(_UTF8).asp`:

Field	Explanation
PSPID	Merchant affiliation name in our system
ORDERID	Merchant order number (merchant reference)
AMOUNT	Amount to be paid (MULTIPLIED BY 100)
CURRENCY	Order currency in ISO alpha code
LANGUAGE	Customer language

Field	Explanation
ACCEPTURL	URL to which the customer's details will be posted if the identification is successful
DECLINEURL	URL to which the customer's details will be posted if the identification fails
PM	Fixed value "PAYPAL"
TXTOKEN	Fixed value "INIT"
DEVICE	If the cardholder is using a mobile device (such as an iPhone), you may send the "mobile" value. Our system does NOT identify the device.

More information about these fields can be found in your PostFinance account. Just log in and go to: Support > Integration & user manuals > Technical guides > Parameter Cookbook.

On submission of the hidden fields, we will redirect the customer to the PayPal website. The customer will be redirected to the PayPal login screen, where he will be able to identify himself, review his delivery details and continue.

This step can be simulated on the following test page: https://e-payment.postfinance.ch/ncol/test/teststd_paypal_express.htm (only after completion of the PayPal account configuration, otherwise you will receive the error "You do not have permission to make this API call"). You can enter "displayparams.asp" as ACCEPTURL and DECLINEURL in order to have the customer details and parameter feedback displayed in the browser window.

4.2.2 Step 2: Client details reception

When the identification is successful, the customer's details, including the addresses stored in his PayPal account, will be posted to the ACCEPTURL you've specified in the hidden fields of the identification request (previous step).

4.2.2.1 Data

The following table lists the available customer data:

IMPORTANT

Not all fields are always available. The details come directly from the PayPal account. We cannot guarantee the accuracy of this data.

Name	Length	Format	Possible Values
PAYEREMAIL	127	email	
PAYERID	17	alphanumeric	
PAYERSTATUS	10	alpha	Verified / Unverified
PAYERSALUTATION	20	alpha	
PAYERFIRSTNAME	25	alpha	
PAYERMIDDLENAME	25	alpha	
PAYERLASTNAME	25	alpha	

Name	Length	Format	Possible Values
PAYERSUFFIX	12	alpha	
PAYERCOUNTRY	2	alpha	
PAYERBUSINESS	127	alpha	
PAYERADRSTATUS	11	alpha	None / Confirmed / Unconfirmed
PAYERADRNAME	32	alpha	
PAYERADRSTREET1	100	alphanumeric	
PAYERADRSTREET2	100	alphanumeric	
PAYERADRCITYNAME	40	alphanumeric	
PAYERADRSTATEORPROVINCE	40	alphanumeric	
PAYERADRPOSTALCODE	20	alphanumeric	
PAYERADRCOUNTRY	2	alphanumeric	
CUSTOM	256	alphanumeric	
INVOICEID	127	alphanumeric	
CONTACTPHONE	12	Mask	+XXXXXXXXXXXX / XXX-XXX-XXXX (US)

More information about these fields can be found in your PostFinance account. Just log in and go to: Support > Integration & user manuals > Technical guides > Parameter Cookbook.

In addition to the data received from PayPal, you will receive the following information from our system:

- TXTOKEN: 25 alphanumeric (the merchant needs to store this information for the payment step)
- PAYID: 15 numeric (the merchant needs to store this information for the payment step)
- PSPID
- ORDERID
- CURRENCY
- AMOUNT
- AUTHENTSTATUS: 0 / 1 (indicates whether or not the buyer was able to identify himself)

4.2.2.2 Security and configuration

To receive the transaction parameters on the specified ACCEPTURL, you need to activate the "I would like to receive transaction feedback parameters on the redirection URLs" option in the "Transaction feedback" tab, in the "HTTP redirection in the browser" section of the Technical Information page.

The redirection process is visible, as it is sent via the customer's browser. Consequently, you must use an SHA-OUT signature to verify the contents of the request (see [SHA-OUT](#)). If you don't configure an SHA-OUT signature, we shall not send any feedback parameters to your ACCEPTURL.

All parameters can be transmitted to the ACCEPTURL using the POST or GET method, depending on the configuration in your PostFinance Account's Technical information page > "Transaction feedback" tab, in the "Direct HTTP server-to-server request" section (Request method).

4.2.2.3 SHA-OUT

To ensure the integrity of the feedback parameters, we strongly recommend you to perform an SHA-OUT calculation.

The values of the fields listed below need to be concatenated in the given order, with the SHA-OUT pass phrase only at the end of the string.

Important remark: this SHA-OUT calculation is not to be confused with the SHA-OUT calculation on the transaction feedback (see e-Commerce Documentation)

Fields to include (if a value is given)

PAYEREMAIL
PAYERID
PAYERSTATUS
PAYERSALUTATION
PAYERFIRSTNAME
PAYERMIDDLENAME
PAYERLASTNAME
PAYERSUFFIX
PAYERCOUNTRY
PAYERBUSINESS
PAYERADRSTATUS
PAYERADRNAME
PAYERADRSTREET1
PAYERADRSTREET2
PAYERADRCITYNAME
PAYERADRSTATEORPROVINCE
PAYERADRPOSTALCODE
PAYERADRCOUNTRY
CUSTOM
INVOICEID
CONTACTPHONE
TXTOKEN
PAYID
PSPID
orderID
currency
amount
AUTHENTSTATUS
SHA-OUT PASS PHRASE (as configured in the Technical information page "Transaction feedback")

Example

Parameters

PAYEREMAIL=billsmith@test.com

PAYERID=smith123

PAYERSTATUS=Verified

PAYERSALUTATION=Mr.

PAYERFIRSTNAME=Bill

```

PAYERMIDDLENAME=
PAYERLASTNAME=Smith
PAYERSUFFIX=
PAYERCOUNTRY=BE
PAYERBUSINESS=
PAYERADRSTATUS=Confirmed
PAYERADRNAME=Smith
PAYERADRSTREET1=Teststreet 123
PAYERADRSTREET2=
PAYERADRCITYNAME=Brussels
PAYERADRSTATEORPROVINCE=
PAYERADRPOSTALCODE=1000
PAYERADRCOUNTRY=BE
CUSTOM=
INVOICEID=abcde12345
CONTACTPHONE=021234567
TXTOKEN=1a76c18n4klo693ms77dq42wb
PAYID=123456789
PSPID=MyPSPID
orderId=test1234
currency=EUR
amount=15.00
AUTHENTSTATUS=1

SHA pass phrase
Mysecretsig1875!/?

String to hash
billsmith@test.comsmith123VerifiedMr.BillSmithBEConfirmedSmithTeststreet
123Brussels1000BEabcde123450212345671a76c18n4klo693ms77dq42wb123456789MyPSPIDtest12
34EUR15.00Mysecretsig1875!/?

Resulting Digest (SHA-1)
DBD2CD8AD440649A5CDB6B6C5C1A49EF29E5474A

```

4.2.3 Step 3: Authorisation/payment request

This third step can be done via e-Commerce or via DirectLink.

4.2.3.1 e-Commerce

You must send at least the following additional hidden fields in the redirection to orderstandard.asp / orderstandard_utf8.asp:

Parameter	Explanation
PSPID	Merchant affiliation name in our system
ORDERID	Merchant order number (merchant reference).
AMOUNT	Amount to be paid (MULTIPLIED BY 100)
CURRENCY	Currency of the order in ISO alpha code
LANGUAGE	Language of the customer
SHASIGN	SHA-IN signature for security
PM	"PAYPAL" fixed value.
TXTOKEN	As received from our system (see step 2)
PAYID	As received from our system (see step 2)

More information about these fields can be found in your PostFinance account. Just log in and go to: Support > Integration & user manuals > Technical guides > Parameter Cookbook.

If you send us the authorisation/payment request via e-Commerce, on submission of the hidden fields the customer will be sent straight to the transaction confirmation screen (unless an error occurs). If you want to redirect the customer at the end of the transaction process, you can send an ACCEPTURL or DECLINEURL in the hidden fields that differs from those sent in step 1.

This step can be simulated on the following test page: <https://e-payment.postfinance.ch/ncol/test/teststd.asp>

Important note on the PayPal cancellation button

The cancel button on the PayPal Express Checkout page does not cancel the transaction on the PostFinance payment page; by default it takes the customer back to the payment method selection on our payment page, OR it redirects the customer to your own payment method selection page by using the "BACKURL" or back button configuration.

You can configure the BACKURL in your PostFinance account, via Configuration > Technical information > Payment page > "Back button redirection", and/or you send it along with the other hidden fields to the payment page. In this last case, the URL in the "Back button redirection" (if entered) will be overwritten.

4.2.3.2 DirectLink

You must send at least the following parameters in the request on orderdirect.asp: (No credit card related information needs to be sent)

Parameter	Explanation
PSPID	The merchant's affiliation name in our system.
USERID	Name of the merchant's application (API) user.
PSWD	Password of the API user (USERID).
ORDERID	The merchant's order number (merchant reference).
AMOUNT	Amount to be paid MULTIPLIED BY 100.
CURRENCY	Currency of the order in ISO alpha code.
PM	Fixed value "PAYPAL".
TXTOKEN	As received from our system (see step 2).
PAYID	As received from our system (see step 2).

More information about these fields can be found in your PostFinance account. Just log in and go to: Support > Integration & user manuals > Technical guides > Parameter Cookbook.

If you've entered a value in the SHA-IN Signature field in the "Checks for DirectLink" section (in the Technical information page in his account, the "Data and origin verification" tab), you also need to send the SHASIGN parameter with your request.

If you send us the authorisation/payment request via DirectLink, our system returns you the response in XML format.

5 Maintenance Operations

Maintenance operations (data capture, refund, etc.) can be performed in your PostFinance Account or via DirectLink, i.e. in a similar way as for standard credit card transactions.

IMPORTANT

A PayPal authorisation is only valid for 3 days.

6 Instant Payment Review (IPR)

Instant Payment Review is a process aimed at reducing fraud through PayPal online payments.

With this functionality, each transaction will have a "pending" status until manually verified by PayPal; this verification usually takes between 24 and 36 hours after the online transaction. Once verified, Paypal will send you an IPN (Instant Payment Notification) containing all relevant payment information.

6.1 Parameters

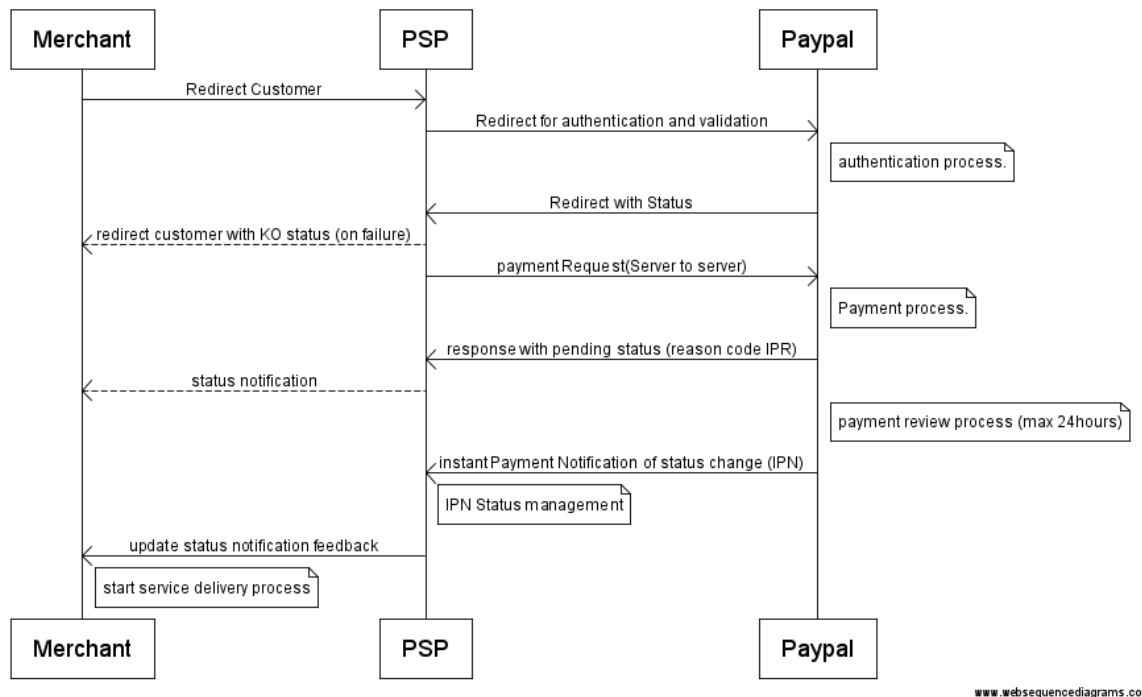
In order for IPR to function, you must send the customer's address information via the fields below:

Field	Mandatory Y/N	Description
ECOM_SHIPTO_ONLINE_EMAIL	N	E-mail address
ECOM_SHIPTO_POSTAL_CITY	Y	Town or city
ECOM_SHIPTO_POSTAL_COUNTRYCODE	Y	ISO country code (BE, FR, US, etc.)
ECOM_SHIPTO_POSTAL_NAME_FIRST	Y	First name
ECOM_SHIPTO_POSTAL_NAME_LAST	Y	Last name
ECOM_SHIPTO_POSTAL_POSTALCODE	Y	Postcode / zip
ECOM_SHIPTO_POSTAL_STATE	N	State (ISO code *)
ECOM_SHIPTO_POSTAL_STREET_LINE1	Y	Address
ECOM_SHIPTO_POSTAL_STREET_LINE2	N	Additional address details
ECOM_SHIPTO_POSTAL_STREET_NUMBER	N	House number
ECOM_SHIPTO_TELECOM_FAX_NUMBER	N	Fax number
ECOM_SHIPTO_TELECOM_PHONE_NUMBER	N	Telephone number

(*ISO codes for US States can be found [here](#). Example: AL (Alabama), FL (Florida))

More information about these fields can be found in your PostFinance account. Just log in and go to: Support > Integration & user manuals > Technical guides > Parameter Cookbook.

6.2 Workflow



During the payment process

After the customer has identified himself, all information is sent to PayPal. The customer will see that the transaction is being processed Offline.

In the first 24 hours following the payment

Nothing will happen. PayPal will not provide a response for at least 24 hours.

Between 24 and 48 hours after the payment

PayPal will send the review results to our system. If you have configured your account to receive offline status change notifications, you will receive one at that moment. This is to be configured in your Technical Information, in the "Transaction Feedback" tab. For more information about notifications, please refer to the Back-Office User Guide.

Between 48 and 96 hours after the payment

If we have not received any information from PayPal after 48 hours, our system will fetch the payment result from PayPal. If no result is received, we will re-try every 4 hours.

96+ hours after the payment

If the transaction is still unresolved after 96 hours, you should contact our customer care Merchanthelp, which will contact PayPal and solve the issue manually.

6.3 Statuses

If working with the *Sale* operation code

When submitting a new transaction, the status will be *"91 - Payment processing"*

If the Review result is positive (no fraud) the transaction status will be *"9 - Payment requested"*

If the Review Result is negative, the transaction status will be *"93 - Payment refused"*

If working with the *Authorisation* operation code

When submitting a new transaction, the status will be *"51 - authorisation processing"*

If the Review result is positive (no fraud), the transaction status will be "5 - Authorised"

If the Review Result is negative, the transaction status will be "2 - Authorisation refused"

IMPORTANT

PayPal recommends you NOT to deliver any goods until payment has been settled!

For more information about operation codes, please refer to the Back-Office user guide.

6.4 PostFinance Account

When viewing the transaction detail in your PostFinance Account, the following message will appear:

Pay ID: 0000000000	Merch ref: test Prod 123
Action: VEN-Datacapture (payment)	Order date(dd/mm/yyyy): 2010/01/01 13:00:00
Status: 9-Payment requested	Description:
Total charge: 1.00 EUR	card/account number: 6011 1010101010101010
Payment methods: 000000	cardvisible
Structured communication: 0000000000000000	Card holder's name: User Test
Authorization code: 0000	Payment file: /
NCMODE: STD	AUMODE: ONLINE
Transaction date(dd/mm/yyyy): 2010/01/01 13:00:00	NC ID: 00000000
UID: 0	TID: 0
Billing client:	encoded by: PayPaltest PayPaltest 000000
Request's IP address: 193.229.128.74	
NC ST/ER:	

Attention ! Your payment, requested online, have been switched to offline processing ... This means that the status remains pending until the end of the offline process.

E-commerce with SSL encryption

Note that this message will remain visible, even when the status has been updated following the PayPal response, (in this example, you see the transaction is already in status 9).

7 PayPal Seller Protection

With PayPal Seller Protection, you might be covered in the event of an unauthorised payment, an item not received dispute, chargeback, or reversal, as long as the transaction in question meets PayPal's eligibility requirements.

You should contact PayPal for any further questions about Seller Protection and eligibility requirements.

In order for a transaction to comply with Seller Protection after approval from PayPal, you must send the following fields with every transaction:

Parameter	Description
ECOM_SHIPTO_POSTAL_NAME_FIRST	Delivery first name
ECOM_SHIPTO_POSTAL_NAME_LAST	Delivery last name
ECOM_SHIPTO_POSTAL_STREET_LINE1	Delivery address first line
ECOM_SHIPTO_POSTAL_STREET_LINE2	Delivery address second line
ECOM_SHIPTO_POSTAL_COUNTRYCODE	Delivery ISO country code (BE, FR, US, etc.)

The following parameters are not mandatory but are recommended to comply in the best way with seller protection:

Parameter	Description
ECOM_SHIPTO_POSTAL_CITY	Delivery city
ECOM_SHIPTO_POSTAL_POSTALCODE	Delivery postcode

More information about these fields can be found in your PostFinance account. Just log in and go to: Support > Integration & user manuals > Technical guides > Parameter Cookbook.

Note

According to PayPal specifications, PostFinance must send the buyer's full name in the field ADRSHIPNAME to PayPal.

The corresponding value for this field is the value of either "ECOM_SHIPTO_POSTAL_NAME_LAST" or "ECOM_SHIPTO_POSTAL_NAME_FIRST", in this order of priority.

When you send both "ECOM_SHIPTO_POSTAL_NAME_LAST" and "ECOM_SHIPTO_POSTAL_NAME_FIRST" parameter values, only the information of "ECOM_SHIPTO_POSTAL_NAME_LAST" will be taken into account for the ADRSHIPNAME field sent to PayPal.