

# ClipperRouter

Clipper router that allows to use `ClipperExchangeInterface` for swaps

## Derives

- [EthReceiver](#)

## Functions

### constructor

function

constructor ( contract

IWETH weth )

### Parameters:

Name Type Description weth contract IWETH

### clipperSwapToWithPermit

function

clipperSwapToWithPermit ( contract

IClipperExchangeInterface clipperExchange , address

payable recipient , contract

IERC20 srcToken , contract

IERC20 dstToken , uint256 inputAmount , uint256 outputAmount , uint256 expiryWithFlags , bytes32 r , bytes32 vs , bytes

calldata permit )

external

returns ( uint256 returnAmount ) Same as `clipperSwapTo` but calls `permit` first, allowing to approve token spending and make a swap in one transaction.

### Parameters:

Name Type Description clipperExchange contract IClipperExchangeInterface Clipper pool address recipient address payable Address that will receive swap funds srcToken contract IERC20 Source token dstToken contract IERC20 Destination token inputAmount uint256 Amount of source tokens to swap outputAmount uint256 Amount of destination tokens to receive expiryWithFlags uint256 Timestamp until the swap will be valid with permit2 flag r bytes32 Clipper order signature (r part) vs bytes32 Clipper order signature (vs part) permit bytes Should contain valid permit that can be used in `IERC20Permit.permit` calls. See tests for examples

### Return values

Name Type Description returnAmount uint256 Amount of destination tokens received

### clipperSwap

function

clipperSwap ( contract

IClipperExchangeInterface clipperExchange , contract

IERC20 srcToken , contract

IERC20 dstToken , uint256 inputAmount , uint256 outputAmount , uint256 expiryWithFlags , bytes32 r , bytes32 vs )

external

payable

returns ( uint256 returnAmount ) Same as clipperSwapTo but uses msg.sender as recipient

#### Parameters:

Name	Type	Description
clipperExchange	contract IClipperExchangeInterface	Clipper pool address
srcToken	contract IERC20	Source token
dstToken	contract IERC20	Destination token
inputAmount	uint256	Amount of source tokens to swap
outputAmount	uint256	Amount of destination tokens to receive
expiryWithFlags	uint256	Timestamp until the swap will be valid with permit2 flag
r	bytes32	Clipper order signature (r part)
vs	bytes32	Clipper order signature (vs part)

#### Return values

Name	Type	Description
returnAmount	uint256	Amount of destination tokens received

### clipperSwapTo

function

clipperSwapTo ( contract

IClipperExchangeInterface clipperExchange , address

payable recipient , contract

IERC20 srcToken , contract

IERC20 dstToken , uint256 inputAmount , uint256 outputAmount , uint256 expiryWithFlags , bytes32 r , bytes32 vs )

public

payable

returns ( uint256 returnAmount ) Performs swap using Clipper exchange. Wraps and unwraps ETH if required. Sending non-zero msg.value for anything but ETH swaps is prohibited

#### Parameters:

Name	Type	Description
clipperExchange	contract IClipperExchangeInterface	Clipper pool address
recipient	address	Address that will receive swap funds
srcToken	contract IERC20	Source token
dstToken	contract IERC20	Destination token
inputAmount	uint256	Amount of source tokens to swap
outputAmount	uint256	Amount of destination tokens to receive
expiryWithFlags	uint256	Timestamp until the swap will be valid with permit2 flag
r	bytes32	Clipper order signature (r part)
vs	bytes32	Clipper order signature (vs part)

#### Return values

Name	Type	Description
returnAmount	uint256	Amount of destination tokens received

[Edit this page](#) [Previous](#) [AggregationRouterV6](#) [Next](#) [GenericRouter](#)