



Articles



ClipperRouter

Clipper router that allows to use `ClipperExchangeInterface` for swaps

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Derives

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Functions

constructor

```
function constructor(contract IWETH weth)
```

Parameters:

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

Return values

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

Return values

Name	Type	Description
<code>returnAmount</code>	<code>uint256</code>	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
<code>clipperExchange</code>	contract <code>IClipperExchangeInterface</code>	Clipper pool address

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

Return values

Name	Type	Description
<code>returnAmount</code>	uint256	Amount of destination tokens received

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