

# Quasimodo Divergence Reversal

Expert Advisor Documentation

PLATFORM	TYPE	TIMEFRAME	WEBSITE
MetaTrader 5 (MT5)	Reversal (Divergence)	M15 – H1	<a href="http://www.algotbot.live">www.algotbot.live</a>

**⚠ Important Disclaimer** This document is for educational and informational purposes only. It does not constitute financial or investment advice. Trading forex, CFDs, and other leveraged instruments involves substantial risk of loss and is not suitable for all investors. Past backtest performance does not guarantee future results. Never trade with capital you cannot afford to lose.

## Overview

The **Quasimodo Divergence Reversal** is a counter-trend Expert Advisor that trades the classic Quasimodo (QM / "over-and-under") reversal pattern, confirmed by RSI momentum divergence. The Quasimodo signature is a *failed extension*: price pushes to a fresh swing extreme beyond the previous one, but momentum refuses to follow. When price prints a higher high while RSI prints a lower high, that bearish divergence marks exhaustion — the EA sells the failed break. The mirror condition (a lower low with a higher RSI low) triggers a long.

Swings are located with **confirmed 5-bar fractals** whose centre sits at shift 3, so a signal is only evaluated once the fractal is fully closed — the strategy does not repaint. Each new fractal is compared against the previous same-side fractal to measure the price-versus-RSI divergence. Trades are protected with an ATR-buffered stop placed beyond the swing extreme and a fixed reward:risk take-profit. Only one position is held per magic number at a time.

**Best market & timeframe.** Reversal trading on FX majors and gold, on M15 through H1. This is a mean-reversion / exhaustion tool — it looks for the point where a trend runs out of momentum, not for trend continuation.

## How It Works

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On every new bar the EA appends the last closed bar to a rolling window, recomputes ATR and RSI, and inspects the confirmed fractal centred at shift 3. Two mirror-image setups are checked:

### Entry Logic

#### SHORT — BEARISH QUASIMODO DIVERGENCE

- A new **up-fractal** forms (its high exceeds the two bars on each side).
- Its high is a **higher high** than the previous up-fractal, by at least  $\text{MinBreakAtr} \times \text{ATR}$ .
- Yet its RSI reading is **lower** than the previous up-fractal's RSI — the bearish divergence.
- The EA is flat and the current spread is within  $\text{MaxSpreadPts}$ .
- → **Sell** at the Bid, treating the failed higher high as exhaustion.

#### LONG — BULLISH QUASIMODO DIVERGENCE

- A new **down-fractal** forms (its low is below the two bars on each side).
- Its low is a **lower low** than the previous down-fractal, by at least  $\text{MinBreakAtr} \times \text{ATR}$ .
- Yet its RSI reading is **higher** than the previous down-fractal's RSI — the bullish divergence.
- The EA is flat and the current spread is within  $\text{MaxSpreadPts}$ .
- → **Buy** at the Ask, treating the failed lower low as exhaustion.

### Exit Logic — Stop Loss & Take Profit

Both sides use the same ATR-based risk model, fixed at entry:

- **Stop loss** — placed just beyond the swing extreme by an ATR buffer.
  - Short:  $\text{SL} = \text{swingHigh} + \text{AtrStop} \times \text{ATR}$
  - Long:  $\text{SL} = \text{swingLow} - \text{AtrStop} \times \text{ATR}$
- **Take profit** — set at a fixed multiple of the measured risk distance.
  - Short:  $\text{TP} = \text{entry} - \text{RewardRisk} \times \text{risk}$
  - Long:  $\text{TP} = \text{entry} + \text{RewardRisk} \times \text{risk}$
- Where  $\text{risk}$  is the absolute distance between entry and stop. If that distance is not positive, the trade is skipped.

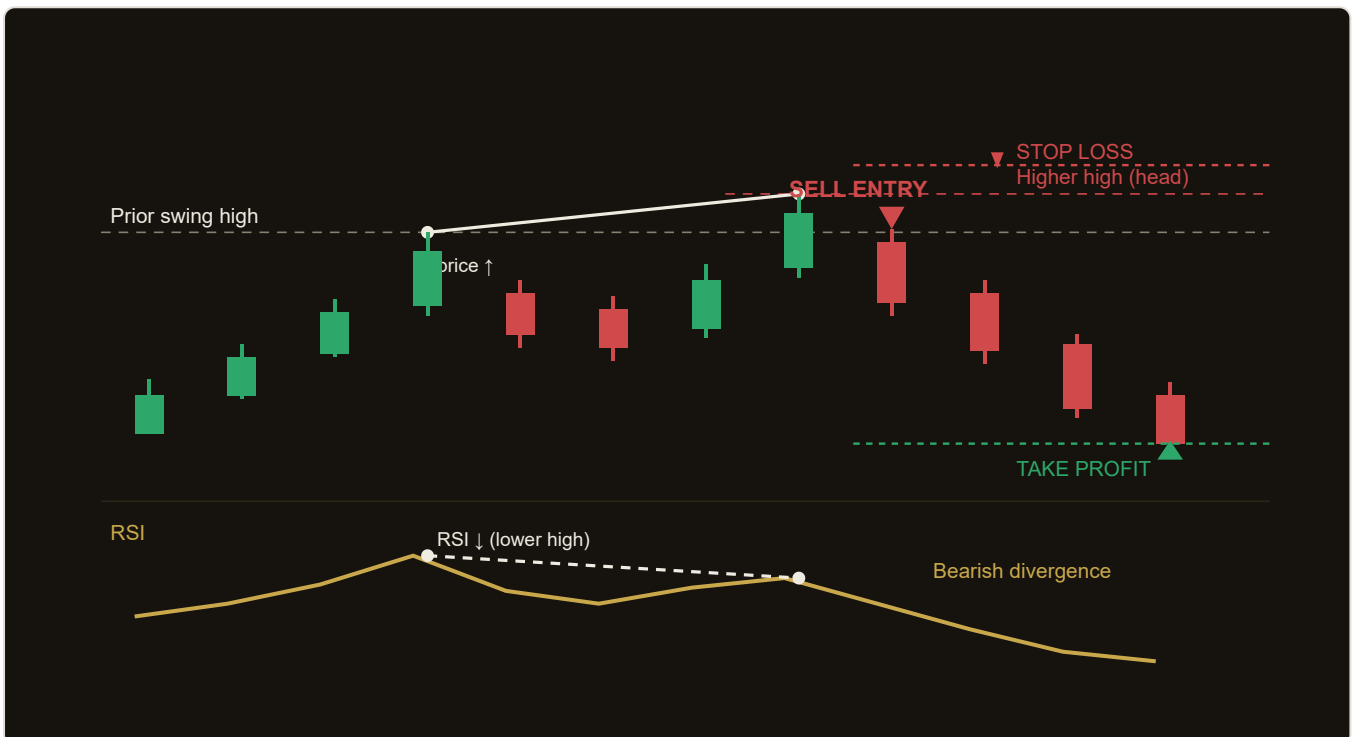
### Non-Repainting Design

Because each fractal requires two fully formed bars on *both* sides of its centre, a swing is only recognised after it has closed and been confirmed. Signals are evaluated on the confirmed fractal centre (shift 3 of the rolling window), so a setup that appears in the tester will appear identically in live trading.

**Tip.** Require a meaningful `MinBreakAtr` so that tiny double-tops and double-bottoms do not qualify as valid higher-highs or lower-lows. The break must be a genuine extension, not market noise.

## Strategy in Action

The illustration below shows an example of how the strategy identifies a setup and triggers its entry and exit. This is a simplified, illustrative example for educational purposes — not real market data. It depicts the **bearish Quasimodo divergence short**: price makes a higher high, but the RSI sub-panel prints a lower high, and the EA sells the exhaustion.



*Illustrative example only. Actual market behaviour varies. Price makes a higher high while RSI makes a lower high — the divergence that triggers the Quasimodo short.*

## Parameters

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Parameter	Default	Description
RsiPeriod	14	Lookback period of the RSI momentum oscillator used to detect divergence at each swing. Range 4–40.
MinBreakAtr	0.30	Minimum distance, in ATR multiples, the new swing must exceed the previous same-side swing before it counts as a valid higher-high / lower-low. Filters out tiny double-tops. Range 0.00–3.00.
AtrPeriod	14	Lookback period of the ATR volatility measure that scales the break filter and the stop buffer. Range 5–50.
AtrStop	0.60	Stop-loss buffer placed beyond the swing extreme, in ATR multiples. Range 0.10–3.00.
RewardRisk	1.80	Take-profit distance as a multiple of the stop distance (reward : risk ratio). Range 0.50–5.00.
MaxSpreadPts	100	Maximum allowed spread, in points, for a new entry to be taken. Blocks trades in poor conditions. Range 5–400.
Lots	0.10	Fixed trade volume, in lots, for each position. Range 0.01–1.00.
Magic	41018	Unique magic number tagging this EA's positions so it manages only its own trades (one position per magic). Range 0–9,999,999.

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## Recommended Settings

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The defaults above are a balanced starting point for FX majors and gold on M15–H1. Adjust to your instrument's volatility and your broker's spread before going live.

- **Symbols:** FX majors (EURUSD, GBPUSD, USDJPY) and gold (XAUUSD).
- **Timeframe:** M15 to H1 — run the EA on the primary chart timeframe only.
- **MinBreakAtr:** raise it (e.g. 0.5–1.0) on noisier symbols so only meaningful extensions qualify.
- **MaxSpreadPts:** tighten to match your broker; wide-spread symbols such as gold may need a higher value.
- **RewardRisk:** reversal setups favour a target above 1.0; the 1.80 default gives room for the mean-reversion move.

### Example — EURUSD, M30

A previous up-fractal formed at 1.09500 with RSI at 71. A fresh up-fractal now prints at 1.09640 (a higher high, well beyond  $\text{MinBreakAtr} \times \text{ATR}$ ) but its RSI is only 64 — a lower high. With ATR at 0.00120 and  $\text{AtrStop} = 0.60$ , the EA sells at the Bid, sets the stop at  $1.09640 + 0.00072 = 1.09712$ , and with  $\text{RewardRisk} = 1.80$  targets a profit of 1.8× the risk distance below entry.

**Common mistake.** Do not treat every higher high as a short. Shorting a higher high with *no* divergence is simply fighting a trend. The RSI lower-high (or higher-low for longs) is the mandatory confirmation — without it, there is no Quasimodo signal.

## How to Install on MetaTrader 5

- 1 Copy `QuasimodoDivergenceReversal.ex5` to your MT5 `MQL5\Experts\` folder
- 2 Restart MetaTrader 5 and refresh the Navigator panel
- 3 Drag the EA onto a chart matching the recommended symbol and timeframe
- 4 Configure the input parameters and click **OK**
- 5 Enable **Algo Trading** in the MT5 toolbar

## Risk Warning

Trading foreign exchange, CFDs, and other leveraged financial instruments involves substantial risk of loss and is not suitable for all investors. The strategies and tools described in this document are provided for **educational purposes only** and do not constitute financial advice, investment recommendations, or solicitation to trade. Always consult a qualified financial adviser before making trading decisions. Past backtest performance is not indicative of future results.