

# Break Of Structure Retest

Expert Advisor Documentation

**PLATFORM**

MetaTrader 5 (MT5)

**TYPE**

Price Action — Break & Retest (Continuation)

**TIMEFRAME**

H1 (works M15–H4)

**WEBSITE**

[www.algotbot.live](http://www.algotbot.live)

**⚠ 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

**Break Of Structure Retest** is an ICT-style, pure price-action continuation Expert Advisor. It does not use a single indicator — every decision is derived from raw OHLC bars on the chart's primary timeframe. The EA maps market structure using fractal swing pivots, waits for a confirmed *Break of Structure* (BoS), and then enters only when price pulls back to *retest* the broken level and prints a rejection candle in the direction of the trend.

The core idea is simple: a level that has just been broken with conviction tends to flip roles — broken resistance becomes support, and broken support becomes resistance. Rather than chasing the breakout, this strategy patiently waits for price to return to that flipped level, confirms the rejection, and joins the established direction of structure with a defined stop and a fixed risk:reward target.

**In one sentence:** map structure → detect a break of structure → wait for a retest of the broken level → enter on a rejection candle → manage the trade with a fixed-buffer stop and a risk:reward target.

# How It Works

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## 1. Mapping market structure (fractal swing pivots)

The EA builds a rolling picture of structure by confirming fractal swing pivots. A bar qualifies as a **swing high** when its high strictly exceeds the highs of its `PivotLength` neighbours on *both* sides; a **swing low** is the mirror image. Because the candidate sits `PivotLength` bars back, a pivot is only ever confirmed once enough future bars exist to validate it — there is no look-ahead.

## 2. Detecting the Break of Structure (BoS)

- **Bullish BoS:** a closed bar closes *above* the most recent confirmed swing high.
- **Bearish BoS:** a closed bar closes *below* the most recent confirmed swing low.

When a break occurs the broken level is stored as the **retest target** (`bosLevel`), and the opposite swing extreme is recorded as the **impulse origin** (`legOrigin`). The distance between them is the **impulse leg**, which scales the retest band and the stop buffer. To avoid resetting its timer on every bar, the setup only re-arms on the first break of a fresh level or when a new, more extreme swing has been taken out.

## 3. The retest & rejection entry

After a BoS the EA waits for price to pull back into the broken level. Two conditions must both be true on the same closed bar:

- **Tagged:** price trades into the retest band — a zone whose width is `RetestBandPercent` of the impulse leg, measured from the broken level.
- **Rejection:** the bar closes back on the BoS side (for longs: a bullish candle that closes above the level; for shorts: a bearish candle that closes below it).

When both hold, the EA enters in the direction of structure — a **Buy** after a bullish BoS, a **Sell** after a bearish BoS.

### Worked example (long)

Price closes above a swing high at 1.2000 (bullish BoS), having rallied from a swing low at 1.1900 — an impulse leg of 100 pips. With `RetestBandPercent = 0.15`, the retest band is 15 pips. Price pulls back, dips to 1.1990 (inside the band), and closes a bullish candle back at 1.2010. Tag + rejection are satisfied, so the EA buys.

## 4. Stop loss & take profit

- **Stop loss** sits just beyond the retest extreme — below the lower of the retest candle's low and the broken level for longs (above the higher of the two for shorts) — padded by `StopBufferPercent` of the impulse leg.
- **Take profit** is placed at a fixed `RiskRewardRatio` multiple of the measured risk (entry-to-stop distance).

Once a position is open, the EA does not micro-manage it: the broker's SL and TP levels handle the exit. Only one position per magic number is held at a time.

## 5. Invalidation & expiry

A pending setup is discarded if either:

- **Structure fails:** price closes back through the impulse origin (below `legOrigin` for a long setup, above it for a short), signalling the break was false.
- **The retest never arrives:** more than `MaxRetestBars` bars elapse without a qualifying entry, so the stale setup expires.

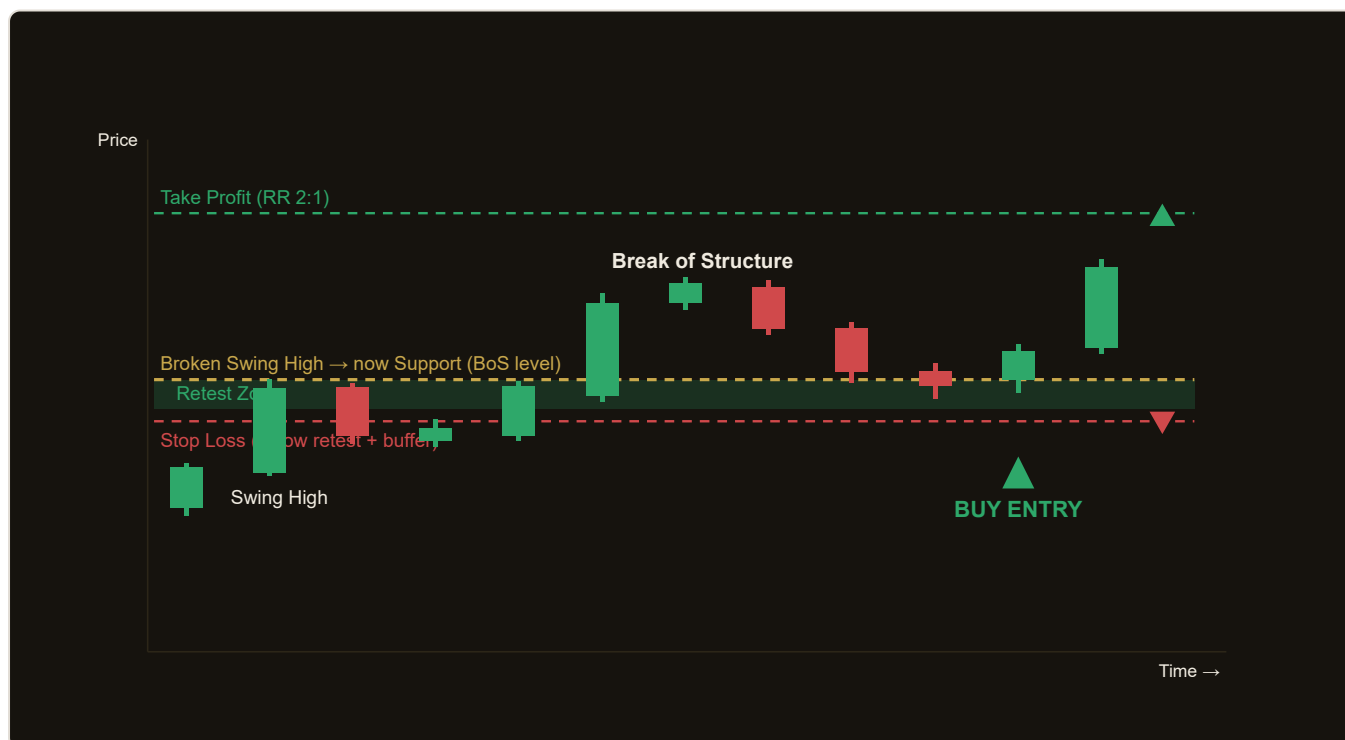
## Execution model

The EA acts **once per fully-closed bar** (shift 0 is the forming bar; shift 1 is the last close). On each new bar it confirms any newly-eligible pivot, checks for a retest entry while flat, and then registers or refreshes a BoS setup — in that order, so a freshly-armed break can never trigger its own entry on the same bar.

## Strategy in Action

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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 a **bullish** Break of Structure: price breaks above a swing high, pulls back to retest the broken level (now support), prints a rejection candle, and the EA enters long with a buffered stop and a 2:1 target.



*Illustrative example only. Actual market behaviour varies.*

## Parameters

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Parameter	Default	Description
PivotLength	3	Fractal pivot half-width — the number of bars required on each side of a swing point for it to be confirmed. Larger values yield fewer, more significant pivots. Range 2–6, step 1.
RetestBandPercent	0.15	Width of the retest acceptance band, expressed as a fraction of the impulse leg. Price must tag within this band of the broken level to qualify for entry. Range 0.02–0.50, step 0.01.
StopBufferPercent	0.10	Extra stop-loss padding placed beyond the retest extreme, as a fraction of the impulse leg. Larger values give the trade more room but increase risk per trade. Range 0.00–0.50, step 0.05.
RiskRewardRatio	2.0	Take-profit distance as a multiple of the measured risk (entry-to-stop). A value of 2.0 targets twice the risk. Range 1.0–4.0, step 0.5.
MaxRetestBars	12	Maximum number of bars to wait for a qualifying retest after a Break of Structure. If none arrives the setup expires. Range 3–40, step 1.
Lots	0.10	Fixed order volume in lots for each trade. Range 0.01–1.0, step 0.05.
Magic	2024	EA magic number used to identify and manage only this strategy's own positions. Give each EA instance a unique value.

## Recommended Settings

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Break Of Structure Retest is a structure-following continuation system, so it performs best on liquid instruments that trend cleanly and respect prior levels. As an indicator-free strategy it adapts to whatever timeframe you attach it to — the impulse leg automatically scales the retest band and stop buffer.

- **Symbols:** major FX pairs (e.g. EUR/USD, GBP/USD, USD/JPY) and liquid indices/metals.
- **Timeframe:** H1 as a balanced default; M15–H4 also work. Lower timeframes produce more — but noisier — setups.
- **Pivot sensitivity:** keep `PivotLength` at 3 for general use; raise to 4–5 on lower timeframes to filter out minor swings.
- **Risk:reward:** the default 2.0 balances win-rate and payoff; lower it toward 1.5 for a higher hit-rate or raise it for fewer, larger winners.

**Tip:** Always validate any configuration in the MT5 Strategy Tester across several years and multiple symbols before going live. Because the EA acts on closed bars, use "Every tick based on real ticks" or at least "1 minute OHLC" for trustworthy results, and size `Lots` to your account so risk per trade stays modest.

**Note on position sizing:** `Lots` is a fixed volume — it does not auto-scale to account balance or to the distance to the stop. Choose a lot size appropriate for your account and the instrument's value per point so that a stop-out remains within your risk tolerance.

## How to Install on MetaTrader 5

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- 1 Copy `BreakOfStructureRetest.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

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