

Breakout Retest Momentum

Expert Advisor Documentation

PLATFORM

MetaTrader 5 (MT5)

TYPE

Breakout & Retest (Momentum)

TIMEFRAME

M15 / M30 / H1

WEBSITE

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

Breakout Retest Momentum is a two-concept Expert Advisor that fuses **support & resistance structure** with **RSI momentum confirmation**. It is built around a single observation: most naive breakout systems bleed out because the majority of "breaks" are liquidity grabs that snap straight back. Rather than chasing the break itself, this strategy refuses to enter until price has proven the move by completing the classic three-step structure that separates a genuine regime change from noise.

A trade is only taken after a level is broken decisively, price pulls back to *retest* that broken level, and momentum confirms a hold on the breakout side. Every distance — the breakout buffer, the retest tolerance, the stop, the target and the trailing stop — is scaled by **ATR**, so the same rules work on a 5-digit FX pair such as GBPUSD or on a high-volatility instrument such as XAUUSD without any point-by-point retuning. Long and short logic are fully distinct and mirror-symmetric.

The EA operates on a single, configurable timeframe and acts **once per closed bar**. It holds at most one position per magic number — there is no stacking, averaging or grid behaviour.

Core idea. A breakout *arms* a setup but never triggers a trade on its own. The entry requires the broken level to be retested and defended with momentum — a broken resistance is expected to act as new support (long bias), and a broken support as new resistance (short bias).

How It Works

1. The Level

On every closed bar the EA measures the highest high (**resistance**) and lowest low (**support**) over the previous `LevelLookback` closed bars, **excluding the current bar** so the level represents genuinely prior structure. These swing extremes define the lines the strategy watches.

2. The Breakout (arms the setup)

A bar must **close** beyond a level by at least `BreakBufferAtr × ATR` for the break to count. The ATR buffer scales this decisiveness filter to the instrument's volatility. When a valid break occurs:

- A close above resistance **arms a long** setup and freezes the broken resistance as the reclaim line (now expected to act as support).
- A close below support **arms a short** setup and freezes the broken support as the reclaim line (now expected to act as resistance).

The setup remains armed for up to `RetestBars` bars, after which it expires if no valid retest occurs.

3. The Retest + Momentum (triggers the entry)

While a setup is armed, the EA waits for price to return to the broken level and defend it. For a **long**, all of the following must be true on a single closed bar:

- **Pulled back** — the bar's low comes within `RetestToIAtr × ATR` of the broken level (the wick reaches the level).
- **Held** — the bar closes back above the level *and* closes above its open (a bullish body in the trade direction).
- **Momentum confirms** — RSI is at or above `RsiMidline` and rising versus the prior bar.
- **Spread is acceptable** — current spread \leq `MaxSpreadPoints`.

The short conditions are the exact mirror: the high wicks up to within tolerance of the level, the bar closes back below the level with a bearish body, and RSI is at or below the midline and falling. If at any point price decisively reclaims the level against the armed direction (closes back beyond it by the break buffer), or the retest window expires, the setup is discarded with no trade.

Stop Loss & Take Profit

Risk is structural and self-scaling. The stop is placed beyond the retest candle's extreme, padded by `StopPadAtr × ATR`, but is never set tighter than `SlAtrMult × ATR` from entry — this floor prevents degenerate micro-stops on tiny retest candles. The take-profit is a fixed `RewardRiskRatio` multiple of that measured risk.

Long:

```
risk = entry - StopLoss  
StopLoss = min( retestLow - StopPadAtr*ATR , entry - SlAtrMult*ATR )  
TakeProfit = entry + RewardRiskRatio * risk
```

Short:

```
risk = StopLoss - entry  
StopLoss = max( retestHigh + StopPadAtr*ATR , entry + SlAtrMult*ATR )  
TakeProfit = entry - RewardRiskRatio * risk
```

Trailing Stop

Once an open trade has advanced $\text{TrailStartAtr} \times \text{ATR}$ in profit, an ATR trailing stop engages, trailing price by $\text{TrailAtrMult} \times \text{ATR}$. The stop only ever moves in the favourable direction and is never loosened. Setting $\text{TrailAtrMult} = 0$ disables trailing entirely, leaving the fixed take-profit and stop in place.

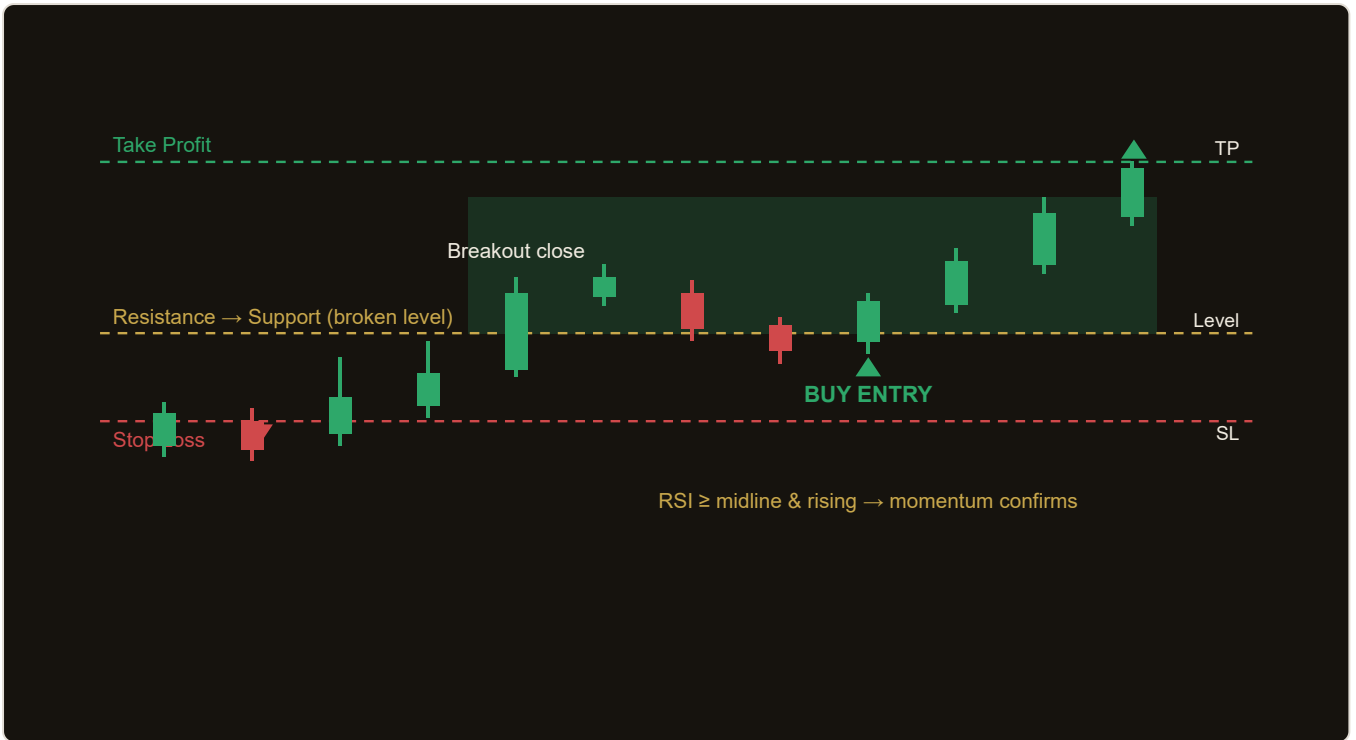
Position Management

The EA holds **one position per magic number**. While a trade is open it only manages the trailing stop — no new setups are armed or entered until the position is closed. All decisions are evaluated once per newly-closed bar on the chart's timeframe.

Why the retest matters. Demanding a retest plus a momentum hold filters out the "break-and-snap-back" traps that punish breakout traders. The trade-off is selectivity — some clean breakouts run away without ever offering a retest, and those are simply skipped.

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.



Illustrative example only. Actual market behaviour varies.

Reading the chart (long example)

Price ranges below resistance, then a bar *closes* decisively above it (breakout) — this arms the long and freezes the level. Over the next few bars price pulls back and wicks down to retest the broken level, then a bullish bar closes back above it while RSI sits above its midline and is rising. That confirmation triggers the

BUY ENTRY

. The stop sits below the retest low (floored at $SL_{ATR} \times ATR$) and the target is $RewardRiskRatio \times$ the measured risk. Short trades mirror this exactly around a broken support.

Parameters

Parameter	Default	Description
LevelLookback	24	Number of prior closed bars (excluding the current bar) whose swing extremes define the support/resistance levels. Range 8–80, step 2.
RsiPeriod	14	RSI smoothing period — the momentum gauge used for entry confirmation. Range 7–28, step 1.
AtrPeriod	14	ATR period used for all volatility-scaled distances. Range 7–28, step 1.
BreakBufferAtr	0.25	The close must clear the level by this many ATRs to count as a genuine break. Range 0.00–1.50, step 0.05.
RetestToAtr	0.40	The retest wick must come within this many ATRs of the broken level. Range 0.05–1.50, step 0.05.
RetestBars	8	Number of bars allowed for the retest to occur before the armed setup expires. Range 2–30, step 1.
RsiMidline	50.0	RSI midline the momentum confirmation must respect (\geq for longs, \leq for shorts). Range 40.0–60.0, step 1.0.
SIatrMult	1.5	Minimum stop distance from entry, in ATRs — a floor that guards against micro-stops. Range 0.5–4.00, step 0.25.
StopPadAtr	0.5	Extra pad placed beyond the retest candle's extreme, in ATRs. Range 0.00–2.00, step 0.05.
RewardRiskRatio	1.8	Take-profit distance as a multiple of the measured risk. Range 1.0–4.00, step 0.10.
TrailStartAtr	1.0	Profit (in ATRs) required before the trailing stop engages. Range 0.0–5.00, step 0.25.
TrailAtrMult	2.0	Trailing stop distance behind price, in ATRs. Set to 0 to disable trailing. Range 0.0–6.00, step 0.25.
MaxSpreadPoints	30	Skip entries when the current spread (in points) is wider than this. Range 1–200, step 1.
Lots	0.10	Fixed order volume in lots. Range 0.01–1.00, step 0.05.
Magic	4711	Magic number identifying this EA's trades. Range 0–9,999,999, step 1.

Recommended Settings

The strategy is designed for liquid trending instruments on intraday-to-swing timeframes. It adapts to whatever timeframe the chart is set to, since every calculation is ATR-scaled and reads the chart's own timeframe.

Setting	Suggested	Notes
Symbols	GBPUSD, XAUUSD	Liquid trenders suit the breakout-retest structure best. Test before live use.
Timeframe	M15 / M30 / H1	Lower timeframes generate more setups but more noise; higher ones are more selective.
Reward:Risk	1.8 (default)	Lower it toward 1.2–1.5 for a higher hit rate, raise it for fewer, larger winners.
MaxSpreadPoints	Match the broker	Tighten for ECN accounts; widen for symbols like XAUUSD with naturally wider spreads.

Tuning tip. If too few trades fire, loosen `RetestTo1Atr` (allow shallower retests) or increase `RetestBars` (a longer retest window). If breaks feel too easy to trigger, raise `BreakBufferAtr` so only decisive closes arm a setup. Always re-validate any change with a fresh backtest on the target symbol and timeframe.

Optimisation caution. ATR-scaled parameters interact. Over-fitting these values to one historical window often degrades out-of-sample performance. Favour robust ranges that work across multiple periods and symbols rather than a single "best" combination.

How to Install on MetaTrader 5

- 1 Copy `BreakoutRetestMomentum.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

Tip. Validate the EA in the MT5 **Strategy Tester** on quality historical data before any live deployment, and confirm behaviour on a demo account first. Because the EA acts once per closed bar, "Open prices only" modelling is a reasonable first pass, with tick-level testing for final validation.

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.