

Perimeter Rejection Hedge

Expert Advisor Documentation

PLATFORM

MetaTrader 5 (MT5)

TYPE

Mean Reversion + Breakout Hedge

TIMEFRAME

M15 / H1

WEBSITE

www.algotbot.live

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Overview

Perimeter Rejection Hedge is a pure price-action support/resistance system with a built-in protective breakout hedge. It uses **no indicators of any kind** — no moving averages, RSI, ATR, Bollinger Bands, or formula-derived pivots. Every level and threshold is read directly from raw bars.

The strategy frames the market inside a rolling "perimeter": the **resistance** ceiling is the highest high of the last **Lookback** closed bars, and the **support** floor is the lowest low over the same window. The average bar range across that window serves as a pure price-action volatility unit — the **Range** — that sizes every buffer, stop, and target.

Its primary behaviour is mean reversion: it **fades** a rejection wick at the edge of the perimeter, expecting price to revert toward the middle of the range. Where it goes beyond a plain S/R fade is the **hedge**: a rejection trade is only wrong when the level actually breaks, so if price punches clean through the perimeter, the EA opens one opposing position in the breakout direction. The primary leg's stop caps the fade loss while the hedge rides the very breakout that beat it — turning a losing level into a recovery opportunity.

Design philosophy. Because levels and volatility are measured from real bars rather than smoothed indicators, the system reacts to genuine market structure. The hedge converts the strategy's single biggest failure mode — a level that fails — into its recovery mechanism.

How It Works

Building the Perimeter

On each evaluation the EA reads only fully closed bars. The signal bar is shift 1 (the last completed bar); the levels are built from the bars *before* it (shift 2 through `Lookback` + 1) so that a touch is judged against pre-existing structure rather than against the signal bar itself.

- **Resistance** = highest High of the lookback window (the ceiling).
- **Support** = lowest Low of the lookback window (the floor).
- **Range** = mean(High – Low) over the window — the price-action volatility unit used for all distances.

If the computed range is non-positive or resistance is not above support, the bar is skipped entirely.

Entry Logic — Fading the Rejection

The EA looks for a bar that pokes *into* a level but closes back inside the range, leaving a dominant rejection wick. The two setups are distinct and symmetric, and only one fresh setup is taken at a time.

SHORT — REJECTION AT RESISTANCE

- The signal bar's High reaches within a buffer (`TouchBufferMult` × `Range`) of resistance.
- The bar **closes back below** resistance.
- The **upper wick** is at least `WickRatio` of the bar's full range — sellers rejected the ceiling.

LONG — REJECTION AT SUPPORT

- The signal bar's Low reaches within a buffer of support.
- The bar **closes back above** support.
- The **lower wick** is at least `WickRatio` of the bar's full range — buyers rejected the floor.

New fades are evaluated only once per newly-formed bar, only when fully flat across both the primary and hedge magic numbers, and are skipped while the spread exceeds `MaxSpreadPoints` (when that filter is enabled).

Stop-Loss & Take-Profit

Both targets are price-action sized in `Range` units and fixed at entry. A minimum broker stop distance is always respected.

SHORT: SL = resistance + SlMult * Range (just beyond the rejected ceiling)
TP = entry - TpMult * Range (back toward the middle of the range)

LONG : SL = support - SlMult * Range (just beyond the rejected floor)
TP = entry + TpMult * Range (back toward the middle of the range)

The Hedge — Recovering From a Failed Level

Hedge management runs on **every tick** so a breakout is caught intrabar. If a primary fade is live and price breaks *through* the perimeter by `HedgeTriggerMult × Range`, the level has failed and a breakout is underway. The EA then opens exactly one opposing position in the breakout direction, sized at `HedgeLotMult × Lots`.

- Primary is **short** and resistance fails → hedge **long** above the ceiling.
- Primary is **long** and support fails → hedge **short** below the floor.

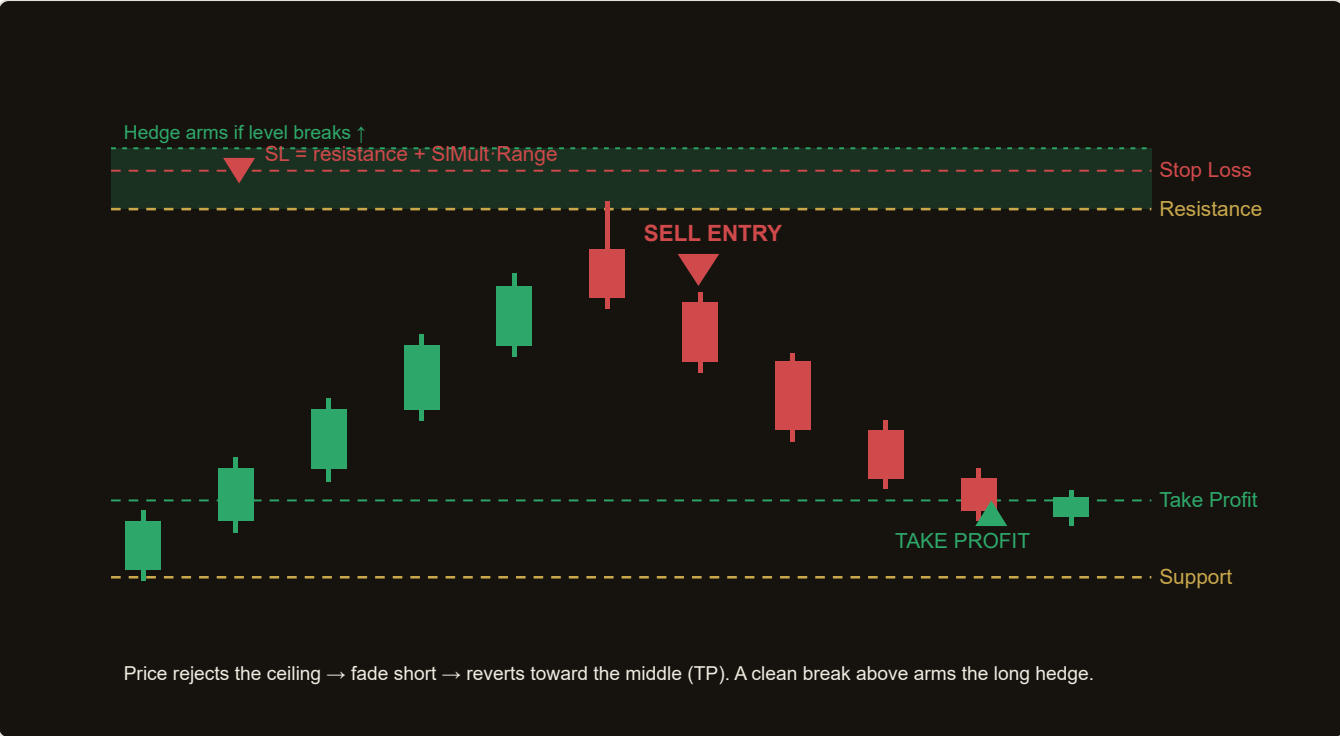
The hedge leg carries its own fixed SL/TP: its stop sits just back inside the broken level (a failed breakout invalidates the hedge), and its target rides the breakout for `TpMult × Range`. Only one hedge is opened per primary, and hedge legs are tagged with a separate magic number (`Magic + 1`).

Worked example — short fade that becomes a recovery hedge

Price rallies into resistance and prints a long-wicked rejection bar that closes back below the ceiling, so the EA sells (the fade). On the next ticks price instead breaks clean above resistance by more than `HedgeTriggerMult × Range`. The breakout has beaten the fade — so the EA buys a larger hedge leg in the breakout direction. The short's stop caps the fade loss while the long hedge rides the run, often netting positive on the pair.

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.

Parameters

Parameter	Default	Description
Lookback	20	Number of closed bars used to build the rolling support/resistance perimeter and the average-range unit. Range 10–60, step 5.
TouchBufferMult	0.25	How close (in Range units) a wick must come to a level to count as a touch. Range 0.05–1.00, step 0.05.
WickRatio	0.45	Minimum rejection-wick size as a fraction of the signal bar's full range. Range 0.25–0.75, step 0.05.
SIMult	1.50	Primary stop distance beyond the rejected level, in Range units. Range 0.50–4.00, step 0.25.
TpMult	2.00	Primary take-profit distance back toward the middle, in Range units. Range 0.50–6.00, step 0.25.
HedgeTriggerMult	0.80	Break-through distance past the level (in Range units) that arms the breakout hedge. Range 0.20–3.00, step 0.10.
HedgeLotMult	1.50	Hedge volume as a multiple of the primary Lots. Range 0.50–3.00, step 0.25.
MaxSpreadPoints	40	Skip new setups while spread (in points) exceeds this value. Set to 0 to disable. Range 0–500, step 5.
Lots	0.10	Primary trade volume in lots. Range 0.01–1.00, step 0.01.
Magic	7301	Magic number identifying the EA's primary trades. Hedge legs are tagged with Magic + 1. Range 0–9,999,999, step 1.

Recommended Settings

The strategy is designed for a liquid FX major such as **EURUSD** on **M15** or **H1**, where clean ranges form and breakouts tend to run. It reads only `ctx.PrimaryTimeframe`, so it will operate on whatever timeframe the chart or backtest selects.

- **Symbol:** A liquid major (e.g. EURUSD) with tight, stable spreads.
- **Timeframe:** M15 or H1 for well-formed ranges.
- **Lookback:** Keep near the default 20; raise it for slower, wider ranges and lower it to react faster.
- **WickRatio:** Higher values demand a more decisive rejection wick (fewer but cleaner signals).

- **HedgeLotMult:** Larger values make the hedge more aggressive in recovering the fade — and raise overall exposure.
- **MaxSpreadPoints:** Tune to your broker; the default 40 blocks entries during spread spikes.

Tip. Always validate any parameter set in the MT5 Strategy Tester on your own broker's data before going live. The hedge can hold two opposing positions at once, so confirm your account permits hedging mode and that margin is sufficient for both legs.

Account mode. This EA opens a primary leg and an opposing hedge leg simultaneously. It requires a **hedging** account; on a netting account the two legs would offset rather than coexist, defeating the strategy's recovery design.

How to Install on MetaTrader 5

- 1 Copy `PerimeterRejectionHedge.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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