Algobot
Maximize Your Profits

Dual Boundary Rejection Hedge

Expert Advisor Documentation

PLATFORM	TYPE	TIMEFRAME	WEBSITE
MetaTrader 5 (MT5)	Range Reversal & Breakout Hedge	H1 (M30–H4)	www.algobot.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

Dual Boundary Rejection Hedge is a pure price-action range strategy that uses **no indicators** whatsoever. It continuously maps two boundaries from recent price history: a **support / demand floor** (the lowest low of the lookback window) and a **resistance / supply ceiling** (the highest high). When a candle pierces one of these boundaries but prints a strong **rejection wick** (a pin-bar-style long wick) and closes back inside the range, the EA fades the move — buying at support or selling at resistance.

The defining feature is a built-in **hedge**. A range fade is, by nature, a bet that price will respect the boundary. If that thesis fails and price **decisively closes through** the boundary instead, the EA opens an opposing **breakout position** — typically larger than the base trade — to recover from and profit on the very move that invalidated the fade. In effect, the strategy is designed to be right whether the boundary holds (the fade wins) or breaks (the hedge wins).

It combines three classic concepts into a single mechanical system: **support & resistance / supply & demand zones**, **candlestick rejection patterns**, and **hedging**.

How It Works

1. Mapping the Range

On each newly completed bar, the EA scans the `RangeLookback` bars *behind* the signal bar (shifts 2 to `lookback+1`) to build the range:

- **Resistance / supply ceiling** — the highest high in the window.
- **Support / demand floor** — the lowest low in the window.
- **Average bar range** — the mean high-to-low span, used to size the boundary buffer.

The **buffer** (zone width and stop cushion) is `BufferFraction × averageRange`. It defines how deep into a zone price may probe and where the protective stop sits.

2. Entry — Wick Rejection Fade

The EA acts only on the **signal bar** (the last fully-closed bar, shift 1), and only when completely flat. It measures the bar's body and wicks, then looks for a pin-bar rejection at either boundary.

LONG (BUY THE SUPPORT / DEMAND FLOOR)

- The bar's low pierces the demand zone: `low ≤ support + buffer`
- It closes back **inside** the range: `close > support`
- It is a **bullish** candle: `close > open`
- It has a long **lower** wick: `lowerWick ≥ WickFraction × barRange`

SHORT (SELL THE RESISTANCE / SUPPLY CEILING)

- The bar's high pierces the supply zone: `high ≥ resistance - buffer`
- It closes back **inside** the range: `close < resistance`
- It is a **bearish** candle: `close < open`
- It has a long **upper** wick: `upperWick ≥ WickFraction × barRange`

3. Stop Loss & Take Profit

Stops are placed just beyond the broken boundary, and the target is a fixed multiple of the risk distance:

- **Long:** SL = `support - buffer`; TP = `entry + RewardRatio × risk`
- **Short:** SL = `resistance + buffer`; TP = `entry - RewardRatio × risk`

where `risk` is the distance between entry and the stop. A trade is only sent when `risk > 0`.

4. The Hedge

While a base trade is live, the EA stops looking for new fades and instead watches for a **decisive boundary break** against the position. The break test uses the signal bar's close versus the boundary captured at entry, plus the entry buffer:

- **Long base fails:** if `close < baseSupport - entryBuffer`, the EA opens a **SHORT hedge** to ride the breakdown.
- **Short base fails:** if `close > baseResistance + entryBuffer`, the EA opens a **LONG hedge** to ride the breakout.

The hedge volume is `Lots × HedgeMultiplier` (rounded to 2 decimals), its stop is placed back inside the broken range, and its target uses the same `RewardRatio`. Only **one** hedge is deployed per base trade (tracked by an internal `hedged` flag).

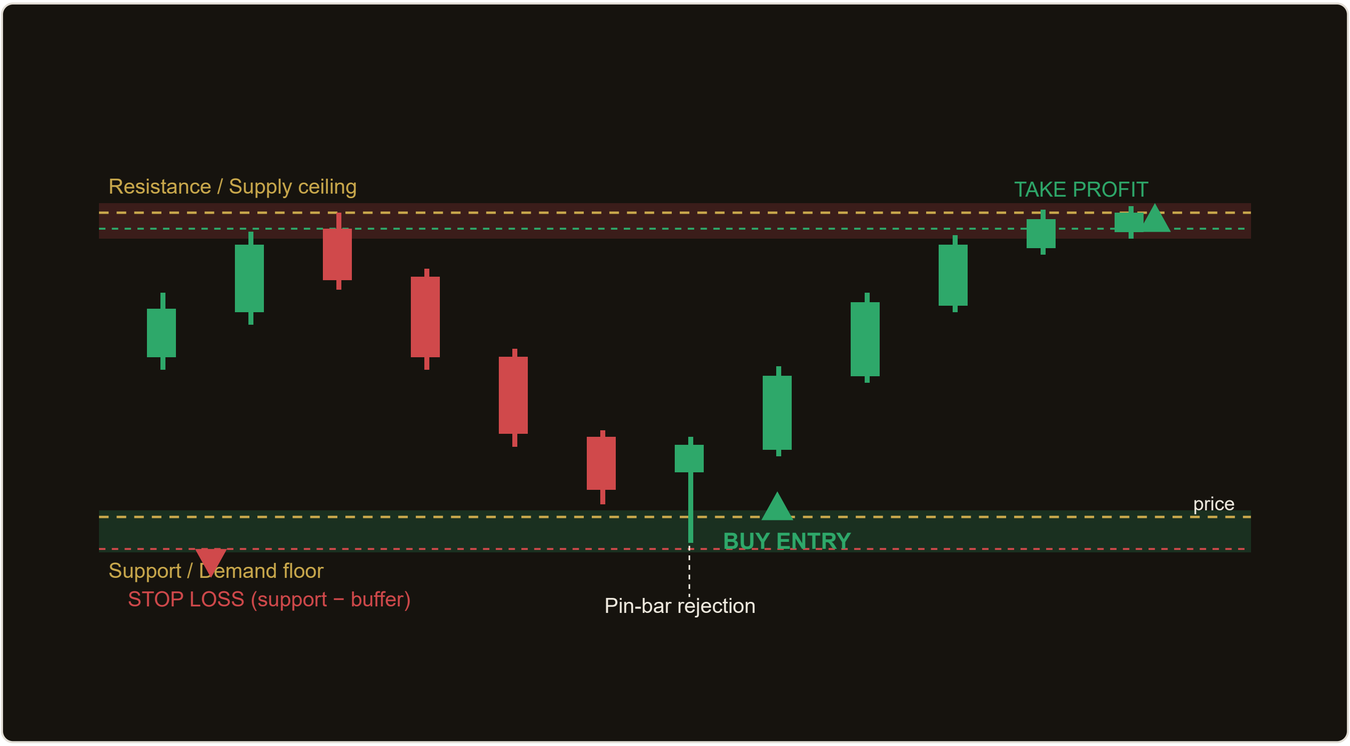
5. Exits & Cycle Reset

Both the base trade and the hedge are managed entirely by their attached **stop loss and take profit** — there is no time-based or trailing exit. Once all positions for the symbol and magic number are closed, the EA detects the flat state on the next bar and resets its internal cycle state, ready to map the range and hunt for a fresh rejection.

> **Note — one trade family at a time.** The EA manages a single base-plus-hedge cycle per symbol/magic. It will not open a new fade while a base position (or its hedge) remains open, which keeps exposure controlled and the logic deterministic.

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.

Walk-through of the example above

Price drifts down toward the demand floor. The signal bar (the pin bar) spikes *below* support but is rejected, closing back inside the range with a long lower wick — a textbook bullish rejection. The EA buys at the next bar, placing its stop just under support (`support − buffer`) and its target at `RewardRatio ×` the risk distance. Price bounces and reaches take profit. Had price instead closed decisively below `support − buffer`, the EA would have flipped to a larger SHORT hedge to capture the breakdown.

Parameters

Parameter	Default	Description
RangeLookback	`20`	Number of completed bars behind the signal bar used to define the support/resistance range. Range 8–60, step 1. Larger values track wider, slower ranges.
WickFraction	`0.50`	Minimum rejection-wick size as a fraction of the signal bar's full range (pin-bar quality filter). Range 0.30–0.80, step 0.05. Higher values demand a more pronounced rejection.
BufferFraction	`0.50`	Boundary zone width and stop buffer, as a fraction of the average bar range in the window. Range 0.10–1.50, step 0.10. Controls how far price may probe a zone and where stops sit.
RewardRatio	`1.80`	Take-profit distance as a multiple of the stop distance (risk:reward). Range 0.80–4.00, step 0.20. Applies to both base trades and hedges.
HedgeMultiplier	`1.50`	Hedge volume relative to the base position when a boundary breaks against the trade. Range 1.00–3.00, step 0.25. Higher values lean more aggressively into the recovery move.
Lots	`0.10`	Base order size in lots. Range 0.01–1.00, step 0.01. The hedge size is this value multiplied by `HedgeMultiplier`.
Magic	`1001`	EA magic number used to identify and manage this strategy's own positions, keeping them separate from other EAs and manual trades.

Recommended Settings

This strategy is built for **ranging, mean-reverting conditions** with clearly defined swing highs and lows, while the hedge offers protection when a range eventually breaks into a trend.

- **Markets:** Major FX pairs (e.g. EUR/USD, GBP/USD, AUD/USD) and liquid instruments that respect horizontal levels with controlled spreads.
- **Timeframe:** H1 is a sensible starting point; M30–H4 work well. Lower timeframes generate more — but noisier — signals.
- **Range definition:** Keep `RangeLookback` near the default (20). Increase it for slower, wider ranges; decrease it to react to tighter, faster consolidations.
- **Rejection quality:** Raise `WickFraction` toward 0.60–0.70 to demand stronger pin bars and reduce false fades; lower it for more frequent entries.

- **Risk:reward:** Start at the default `RewardRatio` of 1.80; pair lower ratios with a higher win-rate range and vice-versa.
- **Hedge sizing:** The default `HedgeMultiplier` of 1.50 leans into breakouts. Reduce toward 1.00 for a more balanced, conservative recovery.

> **Tip — validate before going live.** Always backtest across multiple market regimes (ranging *and* trending) and forward-test on a demo account first. Because the hedge can add exposure precisely when a range is breaking, confirm that combined base + hedge risk fits your account size and risk tolerance.

> **Hedging increases exposure.** When a boundary breaks, the EA opens an opposing position sized at `Lots × HedgeMultiplier`. With a multiplier above 1.0, total open volume during a failed fade can exceed the base size. Ensure your broker permits hedging (independent long/short positions) and that your margin can support the combined exposure.

How to Install on MetaTrader 5

1. Copy `DualBoundaryRejectionHedge.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

> **Broker requirement.** This EA relies on hedging behaviour. Use a **hedging-mode** trading account so the base trade and its opposing hedge can be held simultaneously. On netting accounts the hedge would offset the base position rather than run alongside it.

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.