

Engulfing Boundary Hedge

Expert Advisor Documentation

PLATFORM

MetaTrader 5 (MT5)

TYPE

Price-Action Reversal & Hedge

TIMEFRAME

M5 / M15

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

Engulfing Boundary Hedge is a pure price-action scalper for MetaTrader 5. It uses **no technical indicators of any kind** — no moving averages, RSI, ATR or VWAP. Every decision is derived from raw candle geometry and a self-built pivot “boundary” map that the EA rebuilds on every closed bar.

The strategy reads a classic **engulfing candle** — a body that fully swallows the previous candle’s body — as its single trigger. That trigger is traded two ways: as a **reversal** that fades a support / resistance boundary (the primary scalp), or, when no boundary fade applies, as a **breakout** that rides a clean range break. Both directions are fully mirrored for long and short setups.

On top of the entry logic sits a **hedge overlay**. Each base trade can spawn one opposite-side hedge if price runs against it. When the base recovers to break-even the hedge is lifted; when the base closes, any orphan hedge is flattened. The book is deliberately tight: at most one base per side, plus its single hedge.

Note — Hedging account required. Because this EA can hold a Buy and a Sell on the same symbol at the same time, it must run on a **hedging** MT5 account, not a netting account. On a netting account the opposite order would simply close or reduce the base position instead of opening a true hedge.

How It Works

1. Building the boundary map

On each newly closed bar, the EA scans the last `Lookback` bars *before* the trigger candle and builds a small map of the market structure:

- **HH / LL** — the highest high and lowest low of the window: the range edges.
- **Pivot P** — $(HH + LL + priorClose) / 3$, the classic floor pivot.
- **R1 (resistance)** — $2P - LL$.
- **S1 (support)** — $2P - HH$.

The distance between HH and LL is the **range**, and it drives both the stop size and the breakout buffer. If the range collapses to zero, the bar is skipped.

2. The engulfing trigger

The only pattern the EA looks for is an engulfing candle, measured purely from open / close:

- **Bullish engulfing** — a bearish prior candle followed by a bullish candle whose body fully covers the prior body.
- **Bearish engulfing** — a bullish prior candle followed by a bearish candle whose body fully covers the prior body.

To filter out doji-style noise, the engulfing candle's body must be at least `EngulfBodyFraction` of its own high-to-low range. Smaller, indecisive candles are ignored.

3. Entry logic — reversal first, breakout otherwise

Once a valid engulfing candle is found, the EA chooses a direction in strict priority order. The boundary fade (reversal) is always preferred; a breakout is only taken if no fade applies.

REVERSAL (FADE THE BOUNDARY — THE PRIMARY SCALP)

- **Long** — a bullish engulfing whose low dipped to or under **S1** (support): buy the snap-back.
- **Short** — a bearish engulfing whose high tagged or exceeded **R1** (resistance): sell the snap-back.

BREAKOUT (ONLY IF NO FADE APPLIES)

- **Long** — a bullish engulfing closing above $HH + buffer$: ride the range break up.
- **Short** — a bearish engulfing closing below $LL - buffer$: ride the range break down.

The breakout buffer is $BreakoutBufferFraction \times range$, so the required break grows with volatility. Only one base position per side may be open at a time; if a fresh signal matches a side that is already in the book,

it is skipped. Entries are also blocked while the spread is wider than `MaxSpreadPoints` (set to `0` to disable the guard).

4. Stops & targets — structure-based, fixed

Stops and targets are derived from market structure, not from an indicator like ATR:

- **Stop loss** = `RangeStopFraction × range`, floored at the broker's minimum stop distance.
- **Take profit** = `RewardRatio ×` the stop distance.

A long is entered at the Ask with the stop below and the target above; a short mirrors this at the Bid. All prices are normalised to the symbol's digit precision before the order is sent.

5. The hedge overlay

The protective layer runs on *every tick* so it can react intrabar:

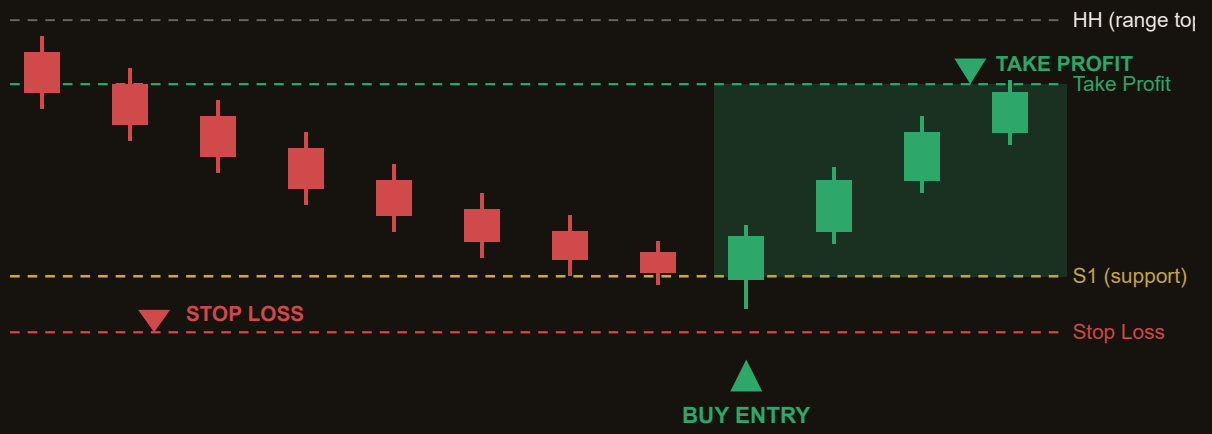
- **Arm** — if a base moves against its entry by `HedgeTriggerFraction` of its own stop distance, the EA opens one opposite-side position so the adverse continuation is captured instead of bleeding the base.
- **Disarm** — when the base recovers back to break-even, the hedge is closed.
- **Clean-up** — if a base closes on its own TP or SL, any orphan hedge linked to it is flattened automatically.

Each base can have at most one hedge, tracked through an internal base-ticket → hedge-ticket map. The result is a deliberately small, self-cleaning book.

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.

Reversal — bullish engulfing fades the S1 support boundary



Illustrative example only. Actual market behaviour varies.

Parameters

Parameter	Default	Description
Lookback	20	Number of bars used to build the pivot and range boundaries (HH, LL, P, R1, S1). Range 8–60, step 2.
RangeStopFraction	0.35	Stop-loss distance as a fraction of the measured range (HH–LL). Range 0.10–1.00, step 0.05.
RewardRatio	1.30	Take-profit distance as a reward multiple of the stop distance. Range 0.50–3.00, step 0.10.
HedgeTriggerFraction	0.70	Adverse move, as a fraction of the stop distance, that arms the opposite hedge. Range 0.30–1.50, step 0.10.
EngulfBodyFraction	0.45	Minimum engulfing body size versus the candle's own range; filters doji noise. Range 0.10–0.90, step 0.05.
BreakoutBufferFraction	0.05	Extra distance past HH / LL (fraction of range) required to confirm a breakout. Range 0.00–0.30, step 0.01.
MaxSpreadPoints	40	Skip new entries while the spread (in points) is wider than this. Set 0 to disable. Range 0–500, step 5.
Lots	0.10	Order volume (lot size) for both base and hedge orders. Range 0.01–1.00, step 0.01.
Magic	73010	Magic number identifying this EA's positions. Range 0–9,999,999, step 1.

Recommended Settings

This EA is built for fast, range-prone markets. Its natural home is a liquid FX major or a metal on a low timeframe.

- **Symbol:** a liquid FX major (e.g. EUR/USD, GBP/USD) or a metal (e.g. XAU/USD).
- **Timeframe:** M5 or M15.
- **Account type:** hedging account (mandatory — see note below).
- **Spread guard:** keep `MaxSpreadPoints` active on low-timeframe scalps to avoid entering during spread spikes.

Example — default configuration

With `Lookback = 20`, `RangeStopFraction = 0.35` and `RewardRatio = 1.30`, a bullish engulfing whose low pierces S1 buys the snap-back. The stop sits 35% of the range below entry and the target 1.3× that distance above. If price instead runs 70% of the stop distance against the trade (`HedgeTriggerFraction = 0.70`), an opposite sell hedge is armed until the base recovers to break-even.

Hedging account required. Engulfing Boundary Hedge can hold a Buy and a Sell on the same symbol simultaneously. It must be run on an MT5 **hedging** account. On a netting account the hedge logic will not behave as designed.

Tip. Always validate any parameter set in the MT5 Strategy Tester on your specific broker's data before going live. Because stops and targets scale with the measured range, the same settings can behave very differently across symbols and volatility regimes.

How to Install on MetaTrader 5

- 1 Copy `EngulfingBoundaryHedge.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.

