

Engulfing Pivot Breakout

Expert Advisor Documentation

PLATFORM

MetaTrader 5 (MT5)

TYPE

Price-Action Pivot Breakout (Hedged)

TIMEFRAME

M5 · M15 · M30

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 Pivot Breakout is a pure price-action Expert Advisor that uses **no indicators** — no moving averages, RSI, ATR, or Bollinger Bands. Instead it fuses four classic raw-price tools into one self-contained system: rolling **floor pivots**, the **engulfing candle** pattern, a momentum **breakout / continuation** entry, and a managed **hedge** that turns a failed breakout into a recovery trade.

The central pivot **PP** acts as the session's fair-value line, with **R1** and **S1** as the magnets above and below it. When a wide engulfing candle — genuine momentum where one side fully erases the other's body — **reclaims PP from the losing side**, control has flipped and price tends to travel to the next pivot magnet. The EA rides that continuation as a quick scalp toward **R1** (longs) or **S1** (shorts).

The known failure mode of any breakout is the **false break**: price pops through PP, traps the breakout crowd, then snaps back. Rather than simply absorbing that stop, the moment PP is convincingly lost again the EA deploys an opposite **hedge leg** and rides the snap-back the other way — converting the textbook "bought the fakeout" loss into a scratch or a win. The hedged pair is then banked at a money **basket** level the instant net floating P/L turns sufficiently green.

Because every distance is sized from the pivot range $(R1 - S1) = (H - L)$ rather than hard-coded pips, the strategy scales automatically across symbols and timeframes.

Best-fit market. A liquid, mean-reverting-then-impulsive FX major such as **EUR/USD, GBP/USD, or AUD/USD** — or **XAU/USD** — on **M5, M15, or M30**, where pivot reclaims and false breaks naturally alternate. The EA runs on whatever timeframe the chart / backtest is set to.

How It Works

1. Floor pivot levels

On every freshly closed bar the EA recomputes the floor pivots from the last `PivotLookback` closed bars of the chart timeframe. Taking `H` = highest high, `L` = lowest low, and `C` = most-recent close:

$$\begin{aligned}PP &= (H + L + C) / 3 \\R1 &= 2 \cdot PP - L \\S1 &= 2 \cdot PP - H \\range &= H - L \quad (\text{equals } R1 - S1)\end{aligned}$$

The pivot `range` is the single yardstick used to size every buffer, stop, target, and hedge trigger — so all distances scale to any symbol or timeframe with no pip hard-coding.

2. Entry — engulfing pivot reclaim (flat only)

Entries are evaluated once per closed bar and only when completely flat. The long and short rules are exact mirror images.

LONG SETUP → CONTINUATION TOWARD R1

- The just-closed candle is a **bullish engulfing**: it is bullish, the prior candle is bearish, and the current body fully covers the prior body.
- It **opened at/below PP** and **closed above PP by a clear buffer** (`BreakBufferFrac` of the range).
- The engulfed bar closed **below PP** (control was previously with the bears).
- The body is a **dominant momentum body** — at least `BodyDomFrac` of its own high-low range and at least `MinBodyFrac` of the pivot range.

SHORT SETUP → CONTINUATION TOWARD S1

- The mirror image: a **bearish engulfing** that opened at/above PP, closed below PP by the buffer, with the prior bar closed above PP and the same momentum-body conditions.

3. Base stop, target and the hedge trigger

When the base leg opens, three reference prices are set from the pivot range:

- **Take-profit** is the next pivot magnet — **R1** for longs, **S1** for shorts — with a guaranteed minimum reward of **RewardFrac** of the range.
- **Hedge trigger** sits **FailFrac** of the range back beyond PP. If price travels there, the reclaim is deemed to have **failed**.
- **Base stop-loss** is placed a structural **StopFrac** pad *beyond* the hedge trigger, so the hedge always engages first.

4. The hedge — the signature mechanic

While the single base leg is open, if price travels **FailFrac** of a range back beyond PP (a clear false break) the EA opens an opposite market leg. The account now holds **both directions** — a genuine locked hedge that rides the snap-back and offsets the losing base leg. The hedge's own stop sits where reclaiming PP would prove the snap-back wrong, and its target is scaled from the PP-to-trigger distance.

Worked example — false break recovery

A bullish engulfing reclaims PP, so the EA buys toward R1. Price instead fails, slides back through PP and reaches the hedge trigger **FailFrac** below PP. The EA sells an equal leg, locking the pair. Price continues down (the snap-back), the short leg profits, and the moment net floating P/L of the basket reaches **BasketTpMoney** the EA closes everything — banking a recovery from what began as a losing breakout.

5. Basket money management (dominant exit)

While any exposure is held, basket-level money management overrides everything else and is checked on every tick:

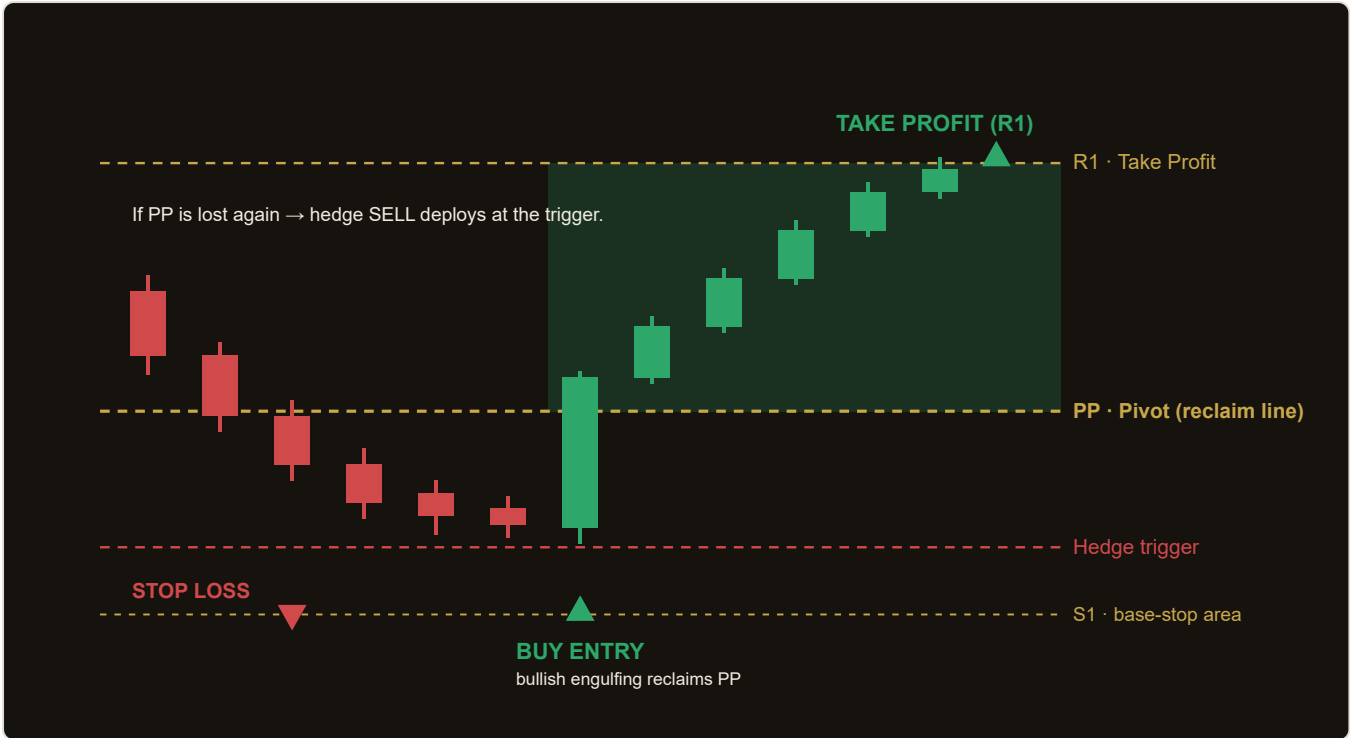
- Net floating P/L \geq **BasketTpMoney** → close the entire basket (banks the recovery / win).
- Net floating P/L \leq - **BasketS1Money** → flatten everything (a hard ceiling on hedge risk; the worst case is a strong one-way trend after the hedge locks).

A spread filter (**MaxSpreadPoints**) blocks new entries when the spread is too wide, and all volumes are snapped to the symbol's lot step and min/max limits.

Hedging account required. This EA holds opposing buy and sell positions on the same symbol simultaneously. It must run on a **hedging-enabled MT5 account**, not a netting account, or the hedge leg will simply offset the base position instead of locking it.

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
PivotLookback	20	Number of closed bars whose H/L/C define the rolling floor pivots. Range 5–150.
BreakBufferFrac	0.05	The close must clear PP by this fraction of the pivot range to count as a clean reclaim. Range 0.00–0.50.
BodyDomFrac	0.55	The engulfing body must be at least this fraction of the candle's own high-low range (momentum filter). Range 0.30–0.95.
MinBodyFrac	0.18	The engulfing body must also be at least this fraction of the pivot range (significance filter). Range 0.03–1.50.
FailFrac	0.25	Distance back beyond PP that confirms the reclaim has failed and deploys the hedge (fraction of the range). Range 0.05–1.00.
StopFrac	0.30	Extra base-stop pad placed beyond the hedge trigger (fraction of the pivot range). Range 0.05–2.00.
RewardFrac	1.00	Minimum reward distance guaranteed for the base take-profit (fraction of the pivot range). Range 0.20–4.00.
BasketTpMoney	25.0	Close the whole basket once net floating profit reaches this amount (account currency). Range 5.0–2000.0.
BasketSIMoney	300.0	Flatten the whole basket once net floating loss reaches this amount (account currency). Range 50.0–100000.0.
MaxSpreadPoints	50	Skip new entries while the spread (in points) exceeds this value. Set 0 to disable. Range 0–500.
Lots	0.10	Fixed volume for both the base leg and the hedge leg. Snapped to the symbol's lot step. Range 0.01–1.00.
Magic	8310	Magic number identifying this EA's positions. Range 0–9,999,999.

Recommended Settings

Start from the defaults, then tune to the symbol and timeframe via the Strategy Tester. The guidance below reflects how the parameters interact.

Symbol & timeframe

- **Symbols:** EUR/USD, GBP/USD, AUD/USD, or XAU/USD — liquid instruments that alternate between mean reversion and impulse.
- **Timeframe:** M5, M15, or M30. Lower timeframes generate more setups but are more sensitive to spread; `MaxSpreadPoints` matters more there.

Tuning notes

- **PivotLookback** — smaller values (10–15) make pivots more reactive and produce more frequent setups; larger values (30–50) define broader, slower-moving levels.
- **BreakBufferFrac / BodyDomFrac / MinBodyFrac** — raise these to demand stronger, cleaner reclaims (fewer but higher-quality entries); lower them for more activity.
- **FailFrac / StopFrac** — control how early the hedge engages and how far the structural base stop sits beyond it. Keep `StopFrac` > 0 so the hedge always triggers before the base stop.
- **BasketTpMoney / BasketSlMoney** — scale both to your account size and the chosen `Lots`. The basket TP is the primary profit-taking exit; the basket SL is the hard risk ceiling once a hedge is locked.

Tip. Because every level is derived from the pivot range rather than fixed pips, the fraction-based parameters (`FailFrac` , `StopFrac` , `RewardFrac` , the body fractions) transfer reasonably well between symbols. The money parameters (`BasketTpMoney` , `BasketSlMoney`) and `Lots` do *not* — always re-scale them to the account you deploy on.

Sizing matters most. A locked hedge can still lose if price trends hard one way after the lock. Size `Lots` and `BasketSlMoney` conservatively, and forward-test on a demo account before risking real capital.

How to Install on MetaTrader 5

- 1 Copy `EngulfingPivotBreakout.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 (on a hedging-enabled account)
- 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.