

Pivot Breakout Engulfing Hedge

Expert Advisor Documentation

PLATFORM

MetaTrader 5 (MT5)

TYPE

Price-Action Breakout & Hedge

TIMEFRAME

M5 / M15

WEBSITE

www.algotbot.live

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Overview

Pivot Breakout Engulfing Hedge is a pure price-action Expert Advisor for MetaTrader 5. It uses **no indicators whatsoever** — no moving averages, RSI, ATR, Bollinger Bands or VWAP. Instead it fuses five classic chart-reading tools into a single, self-scaling system: floor **pivots**, a **breakout** trigger, the **engulfing** candle pattern, a false-break **reversal**, and a managed **hedge**.

Every trading session, the EA recomputes the standard floor pivots (PP, R1, S1) from a configurable window of recently closed bars. These levels are where intraday desks defend price, and only two outcomes occur there: either price **breaks** the level with conviction — an engulfing momentum candle slams through and old resistance flips to support (a runaway continuation worth riding) — or the break is a **trap**: a stop-hunt that pokes past the level and is immediately sucked back inside (a false break).

A naive breakout trader wins the first case and gets chopped to death by the second. This system enters on the engulfing thrust, and the moment price falls back *inside* the level — exposing the breakout as a fakeout — it stops defending the loser and deploys an opposite **hedge** leg that rides the snap-back the other way. The classic "bought the high tick of a fakeout" disaster is converted into a hedged scratch or win, banked at the **basket** level once net floating P/L turns sufficiently green.

The edge thesis. This is the deliberate mirror of a pivot-rejection fader. That style fades the level and hedges when it breaks; this style breaks the level and hedges when the break fails. Same levels, opposite default bias — designed for liquid, breakout-prone instruments where genuine breaks and stop-hunt fakeouts alternate.

How It Works

1. The Floor Pivots

On each freshly closed bar, the EA scans the last `PivotLookback` closed bars on the chart's own timeframe and takes the highest high `H`, the lowest low `L`, and the most-recent close `C`. From these it builds the classic floor pivots:

```
PP  = (H + L + C) / 3
R1  = 2 × PP - L      (first resistance)
S1  = 2 × PP - H      (first support)
range = H - L         (== R1 - S1)
```

The pivot `range` ($H - L$) sizes every buffer, stop and target the strategy uses. Because everything is expressed as a *fraction of range*, the EA scales to any symbol or timeframe with zero hard-coded pip values.

2. Entry Logic (flat only)

The EA looks for a fresh setup only when it holds no positions. Entries are distinct, mirror-image long and short rules. The just-closed candle is the "breakout candle"; the one before it is the candle it must engulf.

- **Long — bullish engulfing breakout of R1.** The just-closed candle is a bullish engulfing bar (its body fully engulfs the prior candle's body), it is strong-bodied (the body is at least `BodyFrac` of its full range, filtering weak wicky breaks), the prior bar sat at or under `R1`, and this bar *closes decisively above* R1 (by at least `BreakFrac × range`). Resistance broke with force → buy the breakout.
- **Short — bearish engulfing breakdown of S1.** The mirror: a strong-bodied bearish engulfing bar, the prior bar at or over `S1`, and a close decisively below S1. Support broke with force → sell the breakdown.

A new entry is also skipped while the spread (in points) exceeds `MaxSpreadPoints`, protecting against poor fills during illiquid or news-driven conditions.

3. Base Stop & Target

When the base leg opens, its protective levels are derived structurally from the pivot range:

- **Take Profit** projects a measured move of `RewardFrac × range` in the break direction.
- **Hedge trigger** sits `FalseBreakFrac × range` back *inside* the broken level — the point at which the break is declared a trap.

- **Stop Loss** is placed a structural pad of $\text{StopFrac} \times \text{range}$ *beyond* the hedge trigger, so the hedge always engages first on a fakeout, before the base stop is reached.

4. The Hedge (signature mechanic)

While the single base leg is open, the EA watches price on every tick. If price travels FalseBreakFrac of a range back inside the broken level — a confirmed trap — it opens an **opposite market leg**. The account now holds both directions: a genuine locked hedge that rides the reversal back toward the central pivot and offsets the trapped base leg.

- The hedge volume is $\text{Lots} \times \text{HedgeMult}$ — a heavier counter-leg accelerates recovery.
- The hedge has its own target (a measured move of $\text{RewardFrac} \times \text{range}$) and its own invalidation: if price reclaims the broken level by $\text{ReclaimFrac} \times \text{range}$, the reversal thesis is wrong and the hedge's stop is hit.

Worked example — a fakeout converted

Price ranges under R1, then a strong green engulfing candle closes well above it → the EA buys the breakout. Minutes later price rolls over and slips back below R1: the breakout was a stop-hunt. As price reaches the hedge trigger inside the level, the EA sells $\text{Lots} \times \text{HedgeMult}$ lots. Now long + short are locked. The snap-back drives lower, the heavier short leg profits faster than the long bleeds, and once the *net* floating P/L crosses BasketTpMoney the entire basket is closed in green.

5. Basket Money Management (the dominant exit)

While any exposure is held, the EA continuously sums the net floating P/L (profit + swap) across all its legs and applies two hard rules:

- **Net floating P/L** $\geq \text{BasketTpMoney}$ → close everything. This banks the clean breakout win *or* the hedged recovery.
- **Net floating P/L** $\leq -\text{BasketSlMoney}$ → flatten everything. This is the hard ceiling: the failure mode is a wide whipsaw that pays neither leg, and this cap bounds it.

Individual legs also carry their own broker-side SL/TP as a safety net, but on a live basket the money-management thresholds are usually what close the trade first.

Hedging account required. This EA deliberately holds simultaneous opposing legs (a true hedge). It must run on a **HEDGING** MT5 account. On a **NETTING** account the long and short legs net out into a single position and the hedge mechanic — the core of the strategy — cannot function.

Parameters

| Parameter | Default | Description |
|-----------------|---------|--|
| PivotLookback | 24 | Number of closed bars whose H/L/C define the floor pivots. Range 5–150, step 1. |
| BreakFrac | 0.03 | How far beyond R1/S1 the breakout candle must close to confirm the break, as a fraction of the pivot range. Range 0.00–0.50, step 0.01. |
| BodyFrac | 0.55 | Minimum breakout-candle body as a fraction of its full range — filters weak, wicky breaks. Range 0.20–0.95, step 0.05. |
| FalseBreakFrac | 0.25 | Distance back inside the broken level that confirms the break failed and triggers the hedge, as a fraction of the pivot range. Range 0.05–1.00, step 0.05. |
| StopFrac | 0.40 | Extra base-stop pad placed beyond the hedge trigger, as a fraction of the pivot range. Range 0.05–2.00, step 0.05. |
| RewardFrac | 1.00 | Measured-move reward for the breakout / hedge target, as a fraction of the pivot range. Range 0.20–4.00, step 0.10. |
| ReclaimFrac | 0.40 | Hedge invalidation pad: if price reclaims the broken level by this much, the reversal (hedge) is wrong. Fraction of range. Range 0.05–1.50, step 0.05. |
| HedgeMult | 1.50 | Hedge volume multiplier — hedge volume = Lots × HedgeMult. A heavier counter-leg accelerates recovery. Range 0.50–3.00, step 0.10. |
| BasketTpMoney | 25.0 | Close the whole basket once net floating profit reaches this amount (account currency). Range 5.0–2000.0, step 5.0. |
| BasketSIMoney | 300.0 | Flatten the whole basket once net floating loss reaches this amount (account currency). Range 50.0–100000.0, step 50.0. |
| MaxSpreadPoints | 50 | Skip new entries while the spread (in points) exceeds this value; 0 disables the filter. Range 0–500, step 5. |
| Lots | 0.10 | Base leg trade volume in lots. Range 0.01–1.00, step 0.05. |
| Magic | 5310 | Magic number identifying this EA's positions. Range 0–9,999,999, step 1. |

Recommended Settings

The strategy is symbol- and timeframe-agnostic because every level is sized as a fraction of the live pivot range. It is best suited to liquid, breakout-prone instruments where genuine breaks and stop-hunt fakeouts

alternate.

- **Instruments:** GBP/USD, USD/JPY, or XAU/USD (Gold).
- **Timeframe:** M5 or M15 — fast enough for intraday pivot breaks, slow enough to filter noise.
- **Account type:** a **HEDGING** account (mandatory — see the warning above).
- **Risk sizing:** set `Lots`, `HedgeMult`, `BasketTpMoney` and `BasketSlMoney` together so the basket loss cap is an amount you can comfortably absorb. Remember the hedge adds `Lots × HedgeMult` of opposite exposure.

Tuning tips. Raise `BodyFrac` and `BreakFrac` to demand cleaner, more decisive breakouts (fewer but higher-quality entries). Widen `FalseBreakFrac` to give a breakout more room before declaring it a trap, or tighten it to hedge sooner. Always validate any change in the MT5 Strategy Tester on your broker's data and spread before going live.

How to Install on MetaTrader 5

- 1 Copy `PivotBreakoutEngulfingHedge.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.