

Pivot Reversal Hedge

Expert Advisor Documentation

PLATFORM

MetaTrader 5 (MT5)

TYPE

Pivot Reversal & Hedge Recovery

TIMEFRAME

M15 – H1

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

Pivot Reversal Hedge is an intraday scalping and reversal Expert Advisor built on **100% price action** — it uses no moving averages, RSI, ATR, Bollinger Bands, VWAP, or any other indicator. Its entire decision grid is derived from classic floor **pivots** computed from the previous day's range, combined with full-body **engulfing** candle patterns for high-conviction reversal entries.

The strategy fades pivot levels only when a single candle shows demand or supply flipping inside the bar (an engulfing reversal that stabs the pivot and closes back through it). When a faded level instead *fails* and turns into a breakout, the EA does not simply absorb the loss — it deploys an oversized opposite **recovery hedge** so the new breakout leg works off the stranded base leg. The locked pair is then banked the moment net floating profit turns green, converting a classic “faded a level that ran” loss into a scratch or a win.

Because every buffer is sized from the previous day's range ($\text{range} = H - L$) and the engulfing-bar range, nothing is pip-hard-coded — the logic scales automatically to whatever symbol and timeframe it is attached to.

Edge thesis. Floor pivots derived from the prior day's range (PP / R1 / S1 / R2 / S2) are the session reference grid that trading desks lean on. Two repeatable things happen at them: the level *holds* (a full-body engulfing reversal prints — fade it), or the level *fails* (price runs through — hedge it). Pivot Reversal Hedge has an explicit, mechanical response to both outcomes.

How It Works

1. Daily Pivot Grid

Once per calendar day — detected purely from a date change in the primary-timeframe bar stamps, with no second timeframe read — the EA recomputes the classic floor pivots from the **previous day's** aggregated High, Low, and Close:

$$\begin{aligned} \text{PP} &= (\text{H} + \text{L} + \text{C}) / 3 \\ \text{R1} &= 2 \cdot \text{PP} - \text{L} & \text{S1} &= 2 \cdot \text{PP} - \text{H} \\ \text{R2} &= \text{PP} + (\text{H} - \text{L}) & \text{S2} &= \text{PP} - (\text{H} - \text{L}) \end{aligned}$$

The day's `range = H - L` sizes every tolerance buffer, so the grid adapts to the instrument automatically. On startup, the EA seeds its day aggregation from up to 4,000 available closed bars so pivots are ready early rather than after a full session has elapsed.

2. Entry Logic (flat only, mirror-image long & short)

The EA hunts for trades only when it has no open exposure, and evaluates exactly once per freshly-closed bar. An entry requires a full-body engulfing candle whose extreme stabbed a pivot zone and whose close reclaimed the level:

- **Long** — a **bullish engulfing** candle whose *low* stabbed a support pivot (S1 or S2) and whose *close* held back above it. Buyers reclaimed support inside one bar → buy the reversal.
- **Short** — a **bearish engulfing** candle whose *high* stabbed a resistance pivot (R1 or R2) and whose *close* held back below it. Sellers reclaimed resistance inside one bar → sell the reversal.

An engulfing is valid only when the signal candle's body fully covers the prior (opposite-coloured) candle's body and is at least `EngulfRatio` times its size. "Stabbed" means the wick pierced within `ZoneFrac × dayRange` of the pivot. New entries are skipped while the spread (in points) exceeds `MaxSpreadPoints`.

3. Stop Loss & Take Profit (the base leg)

Both stops are sized from the engulfing (signal-bar) range, here called `risk`:

- **Stop loss** sits beyond the engulfing extreme — below the candle low for longs, above the candle high for shorts — padded by `StopR × risk`.
- **Take profit** is a scalp multiple, `RewardR × risk`, from entry. This is banked fast: the design is a scalp, not a swing.

Both levels are clamped to respect the broker's minimum stop distance (`StopLevel`).

4. The Hedge (signature mechanic)

While a single base leg is open, the EA watches intrabar for the level to fail. If price travels `HedgeTriggerR` engulfing-ranges **against** the entry, the pivot is judged to have failed and an opposite market leg is opened, sized at `base lots × HedgeMultiplier`. Both directions are now held — a genuine locked hedge, with the oversized new leg riding the breakout off the stranded base.

5. Basket Exit (money management)

Once any exposure is held, the whole basket is managed on net floating P/L (profit + swap across all of this EA's legs on the symbol):

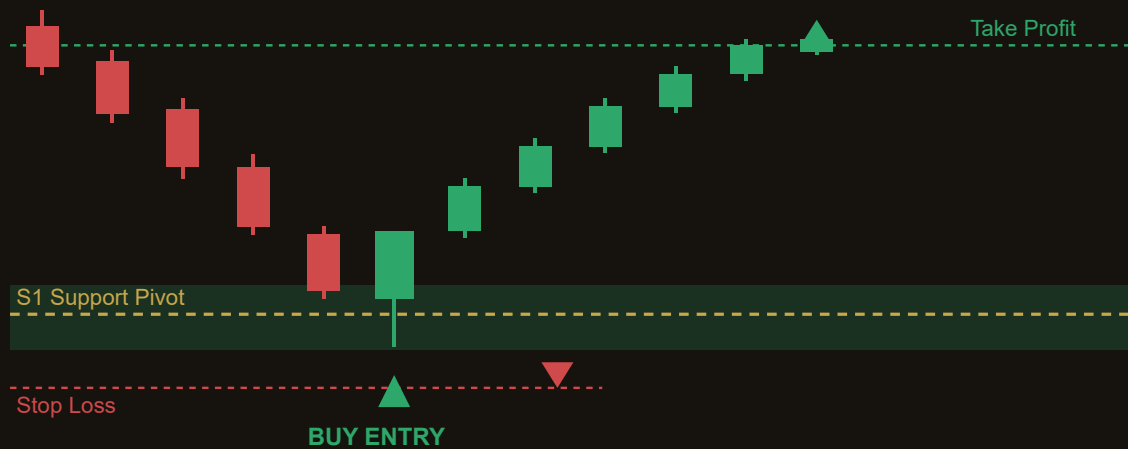
- Net floating P/L \geq `BasketTpMoney` → close *everything* (banks the recovery).
- Net floating P/L \leq - `BasketSlMoney` → flatten *everything* (a hard risk ceiling against a runaway trend).

Hedging / recovery risk. This EA intentionally holds two opposing positions and increases volume on the losing side via `HedgeMultiplier`. If a strong trend keeps running, the basket can sit at a large floating loss until `BasketSlMoney` is hit. Size `Lots`, `HedgeMultiplier`, and `BasketSlMoney` conservatively relative to account equity, and confirm your broker permits hedging (multiple positions per symbol).

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. It depicts the long case: a bullish engulfing candle stabs the S1 support pivot and closes back above it, triggering a buy with a scalp take-profit.

Bullish engulfing reclaims support



Illustrative example only. Actual market behaviour varies.

Worked example (illustrative)

Yesterday's range gives an S1 pivot at 1.0850. Today price drifts down and prints a small bearish candle that closes near 1.0855. The next M15 candle dips to 1.0842 (stabbing the S1 zone), then closes strongly at 1.0872 — a bullish engulfing that fully covers the prior body. The EA buys at the ask, sets the stop below 1.0842 (padded by `StopR`) and a scalp take-profit at `RewardR` times the candle range. If price instead breaks back down through S1 by `HedgeTriggerR` candle-ranges, an oversized sell hedge is deployed and the basket is closed the moment combined floating P/L reaches `BasketTpMoney`.

Parameters

Parameter	Default	Description
ZoneFrac	0.15	How close the engulfing low/high must stab the pivot, as a fraction of yesterday's range. Range 0.02–0.80, step 0.01.
EngulfRatio	1.05	The engulfing body must be at least this multiple of the candle it engulfs. Range 1.00–3.00, step 0.05.
RewardR	1.20	Scalp take-profit, in multiples of the engulfing (signal-bar) range. Range 0.30–5.00, step 0.10.
StopR	0.60	Base stop pad beyond the engulfing extreme, in multiples of the engulfing range. Range 0.10–3.00, step 0.10.
HedgeTriggerR	1.50	Adverse travel (engulfing-ranges from entry) that proves the pivot failed and triggers the hedge. Range 0.50–6.00, step 0.10.
HedgeMultiplier	1.60	Hedge volume = base lots × this recovery multiplier. Range 1.00–4.00, step 0.10.
BasketTpMoney	30.0	Close the whole basket once net floating profit reaches this amount (account currency). Range 5.0–2000.0, step 5.0.
BasketSIMoney	350.0	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 order volume in lots. Range 0.01–1.00, step 0.05.
Magic	5310	Magic number identifying this EA's positions on the symbol. Range 0–9,999,999, step 1.

Recommended Settings

Pivot Reversal Hedge is designed for range-respecting, liquid instruments where pivot holds and false breaks alternate — the habitat its edge depends on.

- **Symbols:** liquid majors such as EUR/USD or AUD/USD, or XAU/USD (gold).
- **Timeframe:** M15 to H1. Lower timeframes generate more pivot tests; H1 produces fewer, cleaner setups.

- **Account:** a hedging account (multiple positions per symbol must be permitted) with a tight, stable spread.

Tuning tip. Treat `HedgeMultiplier`, `BasketTpMoney`, and `BasketSlMoney` as one risk unit. A larger `HedgeMultiplier` recovers faster but enlarges drawdown if the trend continues; keep `BasketSlMoney` sized so the worst-case basket loss stays within your per-trade risk budget. Always backtest and forward-test on a demo account before going live.

How to Install on MetaTrader 5

- 1 Copy `PivotReversalHedge.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. This EA employs a hedging / recovery mechanism that increases position size on a losing side; under sustained trends this can produce large floating drawdowns until the basket stop is reached. Always consult a qualified financial adviser before making trading decisions. Past backtest performance is not indicative of future results.