

Fulcrum Pivot Reversal Hedge

Expert Advisor Documentation

PLATFORM

MetaTrader 5 (MT5)

TYPE

Pivot Reversal (Mean Reversion) + Hedge

TIMEFRAME

M15 (Intraday)

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

Fulcrum Pivot Reversal Hedge is a pure price-action reversal scalper built around a rolling "fulcrum" pivot. On every new bar it recomputes a classic floor pivot from a lookback window of recently completed bars on the primary timeframe — no second timeframe and no indicators are ever read. The pivot defines a balance point (the fulcrum) and two edges around it: an upper edge (**R1**) and a lower edge (**S1**).

The strategy looks for price to *probe* one of these edges and then reverse back toward the fulcrum, confirmed by a candlestick engulfing pattern. When price dips below the lower edge (**S1**) and prints a **bullish engulfing** that reclaims it, the EA scalps a reversal **long**. The mirror image at the upper edge (**R1**) with a **bearish engulfing** triggers a reversal **short**. Stops and targets are taken directly from the signal candle's range, so every trade is sized purely by pattern geometry.

Because a probe of the pivot edge can resolve as either a *reversal* or a genuine *breakout*, the EA includes a built-in hedge engine. If an open scalp drifts adverse by a fraction of its initial risk without being stopped, the market is likely breaking through the pivot rather than reversing. The EA then opens an opposite-side breakout-continuation hedge on a secondary magic number (**Magic+1**) — a real recovery costs the hedge little, while a real breakout pays it.

Note: The fulcrum pivot uses a *session approximation* — instead of reading a higher timeframe, it derives the pivot from the highest high and lowest low of the last `PivotLookback` completed bars. This keeps the EA strictly single-timeframe: every bar read uses the chart's own symbol and period.

How It Works

1. The Rolling Fulcrum Pivot

On each newly completed bar, the EA scans the last `PivotLookback` bars to find the window's highest high (`HH`) and lowest low (`LL`), then computes a classic floor pivot:

```
PP = (HH + LL + Close) / 3      // the fulcrum (balance point)
R1 = 2 * PP - LL               // upper fulcrum edge
S1 = 2 * PP - HH               // lower fulcrum edge
```

The fulcrum `PP` acts as the gravitational center the strategy expects price to return to; `R1` and `S1` are the stretched extremes where a reversal becomes probable.

2. Entry Logic

The EA acts **once per completed bar** and only when no scalp is already open. It evaluates the last completed bar (the signal candle, `b1`) and the bar before it (`b2`) for a body engulfing pattern:

- **Bullish engulfing:** `b2` is bearish, `b1` is bullish, and `b1`'s body fully wraps `b2`'s body (`b1.Close ≥ b2.Open` and `b1.Open ≤ b2.Close`).
- **Bearish engulfing:** `b2` is bullish, `b1` is bearish, and `b1`'s body fully wraps `b2`'s body (`b1.Open ≥ b2.Close` and `b1.Close ≤ b2.Open`).

An entry fires only when the engulfing pattern lines up with a pivot-edge probe:

- **LONG reversal:** a bullish engulfing where the signal candle dipped to or below `S1` (`b1.Low ≤ S1`) but closed back above it (`b1.Close > S1`). Entry is at the current Ask.
- **SHORT reversal:** a bearish engulfing where the signal candle pushed to or above `R1` (`b1.High ≥ R1`) but closed back below it (`b1.Close < R1`). Entry is at the current Bid.

3. Stop Loss & Take Profit

Risk is defined entirely by the signal candle — no indicators or fixed pip distances. The candle range is `range = b1.High - b1.Low`, and a buffer of `StopBufferFactor × range` is placed beyond the candle extreme:

- **Long:** Stop Loss = `b1.Low - buffer`. Risk = entry - SL. Take Profit = entry + `RewardRatio × risk`.
- **Short:** Stop Loss = `b1.High + buffer`. Risk = SL - entry. Take Profit = entry - `RewardRatio × risk`.

The target is therefore a fixed reward multiple of the candle's own risk, aimed back toward the fulcrum.

4. The Hedge Engine

The hedge is managed on **every tick**, so it reacts to adverse drift rather than waiting for a bar close. While a scalp is open, the EA measures how far price has moved against it relative to the scalp's initial risk. If the adverse excursion reaches $\text{HedgeTriggerR} \times \text{risk}$ without the stop being hit, it opens a single opposite-side hedge on $\text{Magic}+1$:

- **Volume:** $\text{Lots} \times \text{HedgeVolumeFactor}$ (rounded to a 0.01 lot floor).
- **Hedge stop:** placed back at the scalp's open price — so if price recovers, the hedge closes cheaply.
- **Hedge target:** extended $2 \times \text{risk}$ in the breakout direction — so a genuine breakout through the pivot pays the hedge.

Only one hedge is opened per scalp cycle. When the scalp closes (stop, target, or otherwise), the hedge flag resets and the EA is free to arm a fresh hedge on the next scalp.

Tip: The hedge is a *directional bet on a breakout*, not a market-neutral lock. It is intended to recover value when a pivot-edge probe resolves into a real trend move rather than a clean reversal. Size it with HedgeVolumeFactor according to your risk tolerance.

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.



Parameters

Parameter	Default	Description
PivotLookback	20	Number of completed bars in the rolling pivot window used to find the highest high and lowest low. Range 10–60, step 5. Larger values approximate a longer "session" and produce wider, slower-moving fulcrum edges.
StopBufferFactor	0.25	Stop-loss buffer expressed as a fraction of the signal candle's range, placed beyond the candle low (long) or high (short). Range 0.00–1.0, step 0.05. Higher values give the trade more breathing room at the cost of a wider stop.
RewardRatio	1.5	Take-profit distance as a multiple of the candle-based risk. Range 0.5–4.0, step 0.25. A value of 1.5 targets 1.5× the stop distance back toward the fulcrum.
HedgeTriggerR	0.6	Adverse excursion, as a fraction of the scalp's initial risk, that triggers the opposite-side hedge. Range 0.2–1.0, step 0.10. Lower values arm the hedge sooner; higher values wait closer to the stop.
HedgeVolumeFactor	1.0	Hedge volume as a multiple of the scalp volume ($\text{Lots} \times \text{factor}$). Range 0.5–2.0, step 0.25. Controls how aggressively the breakout-continuation hedge is sized.
Lots	0.10	Fixed volume for the reversal scalp, in lots. Range 0.01–1.0, step 0.05. Rounded to two decimals with a 0.01 minimum.
Magic	1001	Base magic number identifying the EA's scalp positions. The hedge engine uses $\text{Magic}+1$ so its trades are tracked and managed separately.

Recommended Settings

The strategy is designed as an intraday reversal scalper. Because every stop and target is derived from the signal candle, it suits liquid instruments with clean, mean-reverting intraday structure.

- **Symbol:** Major FX pairs (e.g. EUR/USD, GBP/USD) or liquid index CFDs with tight spreads.
- **Timeframe:** M15 is the recommended balance; M5 for faster scalps, M30 for fewer, higher-conviction setups.
- **PivotLookback:** 20 on M15 approximates a roughly half-session window. Increase toward 30–40 on faster timeframes.

- **RewardRatio:** 1.5 is a sensible default; the candle-anchored target keeps it realistic for reversion back to the fulcrum.
- **Hedge:** Start with `HedgeTriggerR = 0.6` and `HedgeVolumeFactor = 1.0`, then tune to your risk appetite after backtesting.

Example configuration (EUR/USD, M15)

PivotLookback = 20, StopBufferFactor = 0.25, RewardRatio = 1.5, HedgeTriggerR = 0.6, HedgeVolumeFactor = 1.0, Lots = 0.10, Magic = 1001. The EA arms one scalp at a time and opens at most one hedge per scalp cycle.

⚠ Hedging account required. The hedge engine opens an opposite-side position on the same symbol while the scalp is still open. This requires a **hedging** account type in MetaTrader 5 (not netting). On a netting account the opposing order will offset the scalp instead of running alongside it. Always confirm your account mode before live deployment.

How to Install on MetaTrader 5

- 1 Copy `FulcrumPivotReversalHedge.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.

