

Pivot Engulfing Fade Hedge

Expert Advisor Documentation

PLATFORM

MetaTrader 5 (MT5)

TYPE

Mean Reversion (Reversal Fade)

TIMEFRAME

M15 (intraday scalping)

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 Engulfing Fade Hedge is a pure price-action reversal scalper. It uses no indicators whatsoever — instead it constructs classic floor-trader pivot levels (**PP** , **R1** , **S1**) arithmetically from the rolling high, low, and close of the most recent completed bars. The strategy then waits for price to stretch into a pivot band and confirm exhaustion with an **engulfing candle** before fading the move against the prevailing short-term swing.

When price rallies into the **R1** resistance band and prints a **bearish engulfing** candle, the EA *fades the rally* by selling. When price dips into the **S1** support band and prints a **bullish engulfing** candle, the EA *fades the dip* by buying. Every entry carries a fixed, structure-based stop placed beyond the engulfing extreme, and a take-profit derived from a configurable reward-to-risk ratio.

The strategy's defining feature is its **hedge layer**: if price keeps running against the primary position past a configurable fraction of the stop distance, an opposite hedge leg is opened. This caps drawdown on the primary trade while harvesting the continuation move that invalidated the fade.

Core idea: Fade exhaustion at pivot extremes, confirmed by engulfing candles. If the fade is wrong and price runs through, a counter-trend hedge turns the loser's momentum into a partial recovery.

How It Works

1. Building the Pivot Levels

On each newly completed bar the EA scans the most recent `PivotLookback` bars to find the highest high (`hh`) and lowest low (`ll`). Together with the last close it derives floor-trader pivots:

```
range = hh - ll
pp    = (hh + ll + lastClose) / 3
r1    = 2 * pp - ll      (resistance)
s1    = 2 * pp - hh      (support)
```

Two proportional distances are derived from the same range:

- **band** = `ProximityPct × range` — how close to a pivot price must come to count as "at" that level.
- **buffer** = `0.10 × range` — fixed stop padding placed beyond the signal candle's extreme.

2. Detecting the Engulfing Candle

The two newest completed bars are inspected for an engulfing pattern using real-body comparison:

- **Bullish engulfing** — the prior candle is bearish, the current candle is bullish, and the current real body fully engulfs the prior one (`curOpen ≤ prevClose` and `curClose ≥ prevOpen`).
- **Bearish engulfing** — the prior candle is bullish, the current candle is bearish, and the current real body fully engulfs the prior one (`curOpen ≥ prevClose` and `curClose ≤ prevOpen`).

3. Entry Logic

Entries are evaluated only on completed bars and only while the account is completely flat for this EA's magic number.

- **BUY (fade the dip):** a bullish engulfing prints and the signal candle's low reaches into the support band (`sigLow ≤ s1 + band`). Entry is at the Ask.
- **SELL (fade the rally):** a bearish engulfing prints and the signal candle's high reaches into the resistance band (`sigHigh ≥ r1 - band`). Entry is at the Bid.

4. Stop-Loss & Take-Profit

The stop is structural — placed just beyond the engulfing candle's extreme by the `buffer` amount. The take-profit is a multiple of the resulting risk:

```
BUY:  sl = sigLow - buffer ; risk = entry - sl ; tp = entry + RewardRiskRatio * risk
SELL: sl = sigHigh + buffer ; risk = sl - entry ; tp = entry - RewardRiskRatio * risk
```

If the computed risk is non-positive the signal is discarded, so a trade is never opened with an invalid stop.

5. The Hedge Layer

Hedge management runs on *every tick* against live price, but only ever opens a single hedge per cycle. Once a primary position exists (and no hedge yet does), the EA measures how far price has moved adversely relative to the primary stop distance:

```
stopDist = |primaryOpen - primarySL|
trigger when adverse move ≥ HedgeTriggerPct * stopDist
hedge volume = Lots * HedgeMultiplier
```

The hedge is opened in the **opposite** direction of the primary:

- **Primary BUY → SELL hedge:** hedge SL sits just above the primary entry ($+0.15 \times \text{stopDist}$); hedge TP sits a full stop distance below the primary SL. It profits if the breakdown continues and takes only a small loss if price climbs back.
- **Primary SELL → BUY hedge:** mirror image — hedge SL just below the primary entry, hedge TP a full stop distance above the primary SL.

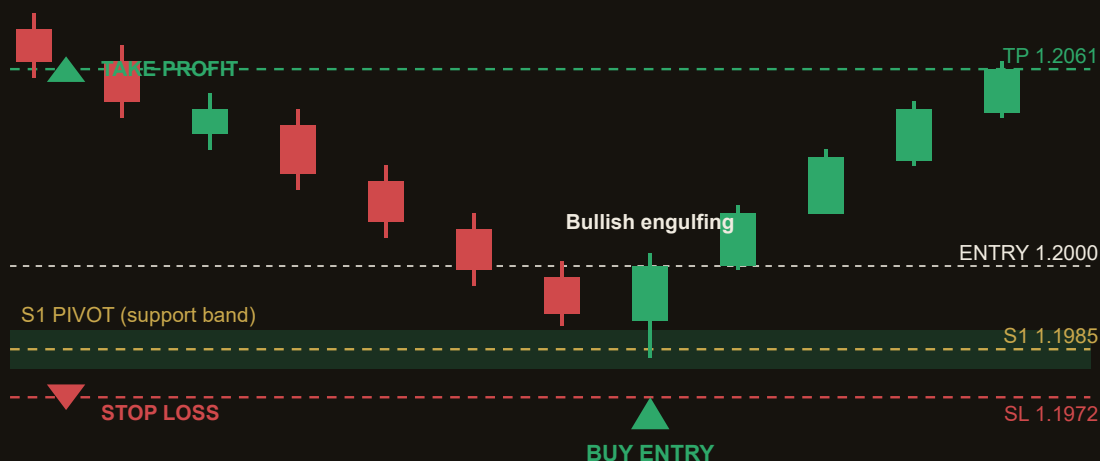
Positions are tagged by comment (`PEFH-P` for primary, `PEFH-H` for hedge) so the EA can tell its legs apart. Once the account is flat again for this magic number, the cycle resets and the EA is free to look for a new fade.

Hedging note: Holding opposing positions simultaneously is not permitted on all account types or in all jurisdictions (notably US "FIFO / no-hedging" accounts). Verify your broker and account permit hedging before deploying this EA live.

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.

EUR/USD · M15 — Bullish Engulfing Fade at S1 Pivot



If price falls below SL trigger instead, an opposite SELL hedge (1.5× lots) opens at 60% of the stop distance.

Illustrative example only. Actual market behaviour varies.

Parameters

Parameter	Default	Description
PivotLookback	20	Number of completed bars used to compute the rolling floor-trader pivots. Range 5–60, step 1. Larger values produce wider, slower-moving pivot levels.
ProximityPct	0.20	Fraction of the lookback range that defines the pivot "band" — how close price must come to $R1 / S1$ to qualify as at the level. Range 0.05–0.60, step 0.05.
RewardRiskRatio	1.5	Take-profit multiple applied to the measured stop distance. Range 0.5–3.0, step 0.1. A value of 1.5 targets 1.5× the risked distance.
HedgeTriggerPct	0.60	Fraction of the primary stop distance the adverse move must reach before the hedge leg opens. Range 0.30–0.95, step 0.05.
HedgeMultiplier	1.5	Multiplier applied to the base lot size for the hedge leg. Range 1.0–3.0, step 0.5. The hedge volume is $Lots \times HedgeMultiplier$.
Lots	0.10	Base trade volume for the primary leg, in lots. Range 0.01–1.0, step 0.05. Clamped/rounded to the broker's min/max/step at order time.
Magic	9410	Magic number used to tag and identify this EA's positions. Use a unique value per chart if running multiple EAs on the same account.

Tip: `ProximityPct` and `PivotLookback` together govern how often setups appear. A tighter band (lower `ProximityPct`) demands price reach deeper into the pivot before a fade qualifies — fewer but cleaner signals.

Recommended Settings

This is a price-action scalper, so it performs best on liquid instruments with clean, mean-reverting intraday structure and tight spreads.

- **Symbols:** Major FX pairs such as EUR/USD, GBP/USD, USD/JPY, and AUD/USD where spreads are low and pivots respect cleanly.
- **Timeframe:** M15 is the primary recommendation; M5–M30 are reasonable alternatives. Lower timeframes generate more setups but are more sensitive to spread and noise.
- **Stops & targets:** Start with `RewardRiskRatio = 1.5`. Fade strategies typically have a higher win rate at lower R:R; raise it only if backtests confirm the targets are reached.
- **Hedge tuning:** A higher `HedgeTriggerPct` (e.g. 0.70–0.80) gives the primary trade more room before hedging; a higher `HedgeMultiplier` recovers more of a losing primary but increases total exposure.

Example configuration — EUR/USD, M15

`PivotLookback = 20`, `ProximityPct = 0.20`, `RewardRiskRatio = 1.5`, `HedgeTriggerPct = 0.60`, `HedgeMultiplier = 1.5`, `Lots = 0.10`. This is the balanced default profile: moderate signal frequency, a structural stop beyond the engulfing extreme, and a single hedge that triggers once price has travelled 60% of the way to the stop.

Always backtest first. Validate these parameters in the MT5 Strategy Tester on your specific broker's data and spread model before considering live deployment. Optimise on one period and forward-test on another to avoid curve-fitting.

How to Install on MetaTrader 5

- 1 Copy `PivotEngulfingFadeHedge.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

Hedging account required: Because the EA can hold opposing buy and sell legs at the same time, it must run on a **hedging** account type. On a netting account the opposite leg would offset the primary rather than coexist with it.

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.