

# Engulfing Pivot Shield

Expert Advisor Documentation

## PLATFORM

MetaTrader 5 (MT5)

## TYPE

Price-Action Reversal & Breakout (Hedged)

## TIMEFRAME

M15 – H1 (intraday)

## WEBSITE

[www.algotbot.live](http://www.algotbot.live)

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## Overview

**Engulfing Pivot Shield** is a pure price-action scalper that uses **no indicators of any kind**. It blends two classic concepts — engulfing candlestick patterns and intraday pivot levels — and then wraps every trade in a protective “shield” that turns a failed idea into a recovery trade.

On each freshly-closed bar the EA rebuilds a rolling pivot frame (Pivot P, resistance R1, support S1) directly from the recent price range. It then checks the just-closed candle for an engulfing pattern positioned at one of those levels. A qualifying pattern produces either a **reversal** entry (price tags a level and closes back through it) or a **breakout** entry (price closes decisively beyond a level).

The defining feature is the **shield**: alongside every entry the EA parks an opposite stop order at the protective stop price. If the market runs against the position and triggers that stop, the original trade closes *and* a same-direction continuation trade opens automatically — converting the loss into a hedged recovery attempt. Stops and targets are sized entirely from the engulfing bar’s own range, so the strategy never depends on a moving average, oscillator, or any external indicator.

**At a glance.** Pure price action • engulfing trigger • pivot-level context • reversal *and* breakout logic • automatic opposite-stop hedge • one position cluster at a time • all risk derived from the signal bar’s range.

# How It Works

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## 1. Rolling pivot frame

On every new bar the EA scans the last `PivotLookback` candles (default 20) on the primary timeframe to find the highest high (`hh`) and lowest low (`ll`). From these it derives a classic pivot frame using the most recent close:

```
pivot = (hh + ll + close) / 3
R1    = 2 × pivot - ll    (resistance)
S1    = 2 × pivot - hh    (support)
```

Because the window rolls forward bar by bar, the pivot, support, and resistance levels adapt continuously to the most recent range — there is no dependence on the broker's daily session boundaries.

## 2. Engulfing trigger

The signal candle is always `bar1` (the last fully-closed candle); the candle it must engulf is `bar2` (the one before it). A pattern qualifies only when one candle's body fully covers the prior body:

- **Bullish engulfing** — `bar2` is bearish, `bar1` is bullish, and `bar1`'s body fully engulfs `bar2`'s body.
- **Bearish engulfing** — `bar2` is bullish, `bar1` is bearish, and `bar1`'s body fully engulfs `bar2`'s body.

If neither pattern is present the EA does nothing on that bar.

## 3. Proximity and the four setups

A proximity threshold scales with the signal bar's own range: `thr = range × ProximityFactor`. A level counts as "tagged" when the engulfing bar's wick reaches within `thr` of it. Four mutually-exclusive setups are evaluated:

- **Reversal Long** — bullish engulfing that tags support (S1) or the pivot from below and closes back above it.
- **Breakout Long** — bullish engulfing that closes decisively above resistance (`close > R1 + thr`).
- **Reversal Short** — bearish engulfing that tags resistance (R1) or the pivot from above and closes back below it.
- **Breakout Short** — bearish engulfing that closes decisively below support (`close < S1 - thr`).

If both a long and a short condition resolve true (or neither does), the EA stands aside — ambiguous, two-sided signals are never traded.

## 4. Entry, stop, and target

All trade geometry comes from the signal bar's range, scaled by a buffer `buf = range × StopBufferFactor`:

- **Long:** enter at the Ask; stop-loss = `bar1.Low - buf`; `risk = entry - sl`; take-profit = `entry + risk × TpRewardRatio`.
- **Short:** enter at the Bid; stop-loss = `bar1.High + buf`; `risk = sl - entry`; take-profit = `entry - risk × TpRewardRatio`.

If the computed risk is zero or negative, the trade is skipped.

## 5. The shield (hedge)

When `HedgeEnabled = 1` and the main order is accepted, the EA immediately parks an opposite stop order *at the main trade's stop-loss price*:

- A long trade is shielded by a **SellStop** at the long's stop.
- A short trade is shielded by a **BuyStop** at the short's stop.

If price runs the wrong way and hits the stop, the main position closes *and* the shield triggers a same-direction continuation trade, attempting to recover the loss as the move extends. The shield's own stop and target are sized from the same range and reward ratio.

### Why "shield"?

A normal stop-loss simply books the loss. Here, the stop level doubles as the trigger for a continuation trade: if a reversal idea fails, the failure itself often signals a stronger move in the opposite direction — the shield is positioned to ride it.

## 6. Lifecycle management

The EA trades one cluster at a time. It only searches for a new setup when it is completely flat — no open positions *and* no pending shield orders for its magic number. The `MaintainShield` routine runs every tick: when no position is live, any leftover pending order (for example, a shield left parked behind the market after the main trade hit its take-profit) is cancelled so the EA returns cleanly to flat.

**New-bar logic.** Setups are evaluated once per freshly-closed bar (detected when the forming bar's timestamp changes). Between bars the EA only maintains the shield, so decisions are made on completed candles, not on intrabar noise.

## Strategy in Action

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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 recent candles scanned to build the rolling pivot frame (highest high / lowest low). Range 8–60, step 2. Larger values give slower, wider levels.
ProximityFactor	0.60	How close (as a multiple of the signal bar's range) a wick must come to a level for it to count as "tagged." Range 0.10–2.0, step 0.10. Higher = more permissive.
StopBufferFactor	0.25	Extra buffer added beyond the signal bar's extreme when placing the stop, as a multiple of the bar's range. Range 0.00–1.0, step 0.05.
TpRewardRatio	1.50	Reward-to-risk multiple used to set the take-profit (and the shield's target). Range 0.50–4.0, step 0.10.
Lots	0.10	Fixed trade volume in lots for both the main trade and the shield order. Range 0.01–1.0, step 0.05.
HedgeEnabled	1	Enables the protective shield order (1 = on, 0 = off). When off, trades use a plain stop-loss with no continuation hedge. Range 0–1.
Magic	920137	Magic number identifying this EA's orders and positions, so it manages only its own trades on the chart.

## Recommended Settings

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The defaults are a balanced starting point for intraday charts. Use the following as guidance when adapting the EA to your instrument and risk tolerance:

- **Symbol & timeframe:** liquid major FX pairs (e.g. EUR/USD, GBP/USD) or indices on **M15–H1**, where engulfing patterns at pivot levels are most meaningful.
- **PivotLookback:** 20 suits M15–H1. Increase toward 40–60 on faster charts or quieter pairs for steadier levels.
- **ProximityFactor:** 0.60 is balanced. Lower it (0.30–0.50) for stricter, higher-quality level tags; raise it for more frequent signals.
- **TpRewardRatio:** 1.50 is the default. Lower ratios increase hit-rate; higher ratios increase per-trade payoff but reduce win frequency.
- **Lots:** size relative to account equity. The default 0.10 is illustrative — reduce for small accounts.
- **HedgeEnabled:** keep at 1 only on hedging-enabled accounts. On netting accounts, or where opposite stop orders are not desired, set to 0.

**Hedging account required.** The shield places an opposite stop order while a position is open. This behaviour requires a **hedging** MT5 account. On a netting account the opposite order would offset the existing position rather than shield it — set `HedgeEnabled = 0` in that case. Always validate any configuration in the Strategy Tester before live use.

## How to Install on MetaTrader 5

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- 1 Copy `EngulfingPivotShield.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

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