

Fvg Inversion Reversal

Expert Advisor Documentation

PLATFORM

MetaTrader 5 (MT5)

TYPE

Price-Action Reversal (Inversion FVG)

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

Fvg Inversion Reversal is a pure price-action Expert Advisor that trades the *inversion* of a fair-value gap — what Smart-Money-Concepts traders call an **Inversion FVG (IFVG)**. It uses **no technical indicators** whatsoever: every decision is made from raw candle highs, lows, opens and closes.

A fair-value gap is a three-candle imbalance: a fast middle candle leaves an untraded void so that, for a bullish gap, the first candle's high sits *below* the third candle's low (and the mirror image for a bearish gap). Many gap strategies trade the gap as support or resistance that *holds* — a fill-and-continue play. Fvg Inversion Reversal does the opposite: it waits for price to **close decisively through** a fresh gap, which invalidates the imbalance and causes it to **flip**. A broken bullish gap becomes fresh supply; a broken bearish gap becomes fresh demand. The first retest of that inverted void is treated as a high-probability **reversal** entry against the side that just failed.

The premise: a gap that fails to hold marks a genuine shift in order flow, and the inverted edge of that gap is exactly where the newly-trapped side gets run out of their positions — offering asymmetric, fixed-risk reversal entries.

No indicators, no repainting. The only average in the entire strategy is a plain mean candle range, computed inline over recent bars to scale the minimum-gap filter to current volatility. That is candle geometry, not a technical indicator. The EA acts only on fully *closed* bars, so signals never repaint.

How It Works

Each direction is handled by an independent three-state machine driven entirely by closed-bar geometry. State **0** is inactive, state **1** is a fresh gap awaiting a violation, and state **2** is an inverted zone awaiting its first retest.

1. Volatility Scale & Gap Detection

On each newly-closed bar the EA computes the mean candle range over the last `RangeLookback` bars and derives a minimum gap size of `MinGapFactor × meanRange`. It then inspects the three most-recently-closed candles (oldest, middle, newest):

- **Bullish gap** — the oldest candle's high is below the newest candle's low, the middle candle closed up (real thrust), and the gap clears the minimum size. The gap is armed as a pending bull setup (state **1**).
- **Bearish gap** — the oldest candle's low is above the newest candle's high, the middle candle closed down, and the gap clears the minimum size. Armed as a pending bear setup (state **1**).

A new gap is never allowed to overwrite a side that is already holding a ready-to-trade inverted zone (state **2**).

2. Inversion (the gap fails)

- A pending **bullish** gap inverts into a **supply** zone the moment price **closes below** the gap's lower edge. If it never inverts within `FvgExpiry` bars, it is discarded.
- A pending **bearish** gap inverts into a **demand** zone the moment price **closes above** the gap's upper edge. Same expiry rule applies.

3. Reversal Entry (the retest)

Only one position per magic number is held at a time. Once a zone is inverted (state **2**), the EA waits for the **first retest**:

- **SELL** — for an inverted supply zone, price rallies back *up* into the void but the bar **closes back under the zone's top**. The EA sells at the Bid as a failed-gap reversal short.
- **BUY** — for an inverted demand zone, price dips back *down* into the void but the bar **closes back above the zone's base**. The EA buys at the Ask as a failed-gap reversal long.

An inverted zone is abandoned if price reclaims it (closes back through to the original side) or if it is not retested within `RetestExpiry` bars.

4. Stop Loss & Take Profit

Risk is defined entirely by the zone geometry:

- **Stop loss** is placed just beyond the far edge of the zone, padded by `ZoneBufferPct` of the zone's height (above the top for a short, below the base for a long).
- **Take profit** is a fixed multiple of the measured risk: `RiskReward × risk`. With the default `RiskReward = 2.0`, the target is twice the stop distance.

Worked example — reversal short

A fresh bullish gap forms between 1.10200 (oldest high) and 1.10260 (newest low). Price later closes at 1.10180, *below* the gap — the bullish gap is invalidated and flips into a supply zone spanning 1.10200–1.10260. Two bars later price rallies back up, tags into the zone, but closes at 1.10240 (back under the top). The EA sells at the Bid. The zone height is 60 points; with `ZoneBufferPct = 0.15` the stop sits 9 points above the top at 1.10269. With `RiskReward = 2.0` the take profit is placed twice the risk distance below entry.

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.



Illustrative example only. Actual market behaviour varies.

Parameters

All inputs are exposed in the MT5 EA properties dialog. Defaults are tuned for FX majors and gold on M15–H1.

Parameter	Default	Description
MinGapFactor	0.20	Minimum gap size as a fraction of the mean candle range. Higher values demand larger, more significant imbalances. Range 0.05–1.50, step 0.05.
RangeLookback	20	Number of recent closed bars used to compute the mean candle range that scales the gap filter to current volatility. Range 10–60, step 1.
FvgExpiry	15	Maximum number of bars a fresh fair-value gap may wait for a violation (close-through) before it is discarded. Range 3–60, step 1.
RetestExpiry	12	Maximum number of bars an inverted zone waits for its first retest before it is abandoned. Range 2–50, step 1.
RiskReward	2.0	Fixed reward-to-risk multiple. The take profit is placed this many times the stop distance from entry. Range 1.0–6.0, step 0.5.
ZoneBufferPct	0.15	Stop-loss buffer as a fraction of the zone height, padding the stop beyond the far edge of the zone. Range 0.00–1.00, step 0.05.
Lots	0.10	Fixed trade volume in lots. Range 0.01–1.00, step 0.01.
Magic	5150	Magic number identifying this EA's positions, so it manages only its own trades.

Tuning tip. Raise `MinGapFactor` to filter for only the most dramatic imbalances (fewer but cleaner setups). Tighten `RetestExpiry` to insist on prompt rejections, or widen `ZoneBufferPct` to give the stop more room when trading volatile instruments such as gold.

Recommended Settings

The defaults were designed with FX majors and XAU/USD on the M15–H1 timeframes in mind, though the EA is locked to no specific timeframe and will run on whatever chart period it is attached to.

SUGGESTED STARTING POINT

- **Instruments:** FX majors (EUR/USD, GBP/USD, USD/JPY) and XAU/USD.
- **Timeframe:** M15 to H1.
- **MinGapFactor:** 0.20 (raise to 0.30–0.40 on noisier symbols such as gold).

- **RiskReward:** 2.0 — a balanced fixed target; lower to 1.5 for a higher hit rate or raise to 3.0+ for fewer, larger winners.
- **Lots:** size to risk no more than 1–2% of account equity per trade given the stop distance.

Always backtest and forward-test first. Because the EA trades counter-trend reversals, it is most exposed during strong, persistent trends where gaps keep failing in the same direction. Validate the settings on your broker's spreads and your chosen symbol before any live use.

How to Install on MetaTrader 5

- 1 Copy `FvgInversionReversal.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.