

Order Block Mitigation

Expert Advisor Documentation

PLATFORM	TYPE	TIMEFRAME	WEBSITE
MetaTrader 5 (MT5)	Price Action / Smart Money Concepts	M15 – H1	www.algotbot.live

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Overview

Order Block Mitigation is a pure price-action Expert Advisor built around Smart Money Concepts (SMC). It uses **no indicators** — every decision is made from raw candle structure. The strategy identifies institutional *order blocks*: the last opposing candle printed right before an impulsive move that breaks market structure (a Break of Structure, or BOS). The unfilled orders left behind in that candle tend to be defended when price later retraces — or “mitigates” — back into the zone.

The EA trades the **continuation** of the move that created the block:

- **Bullish order block** — the last *down* candle before a close *above* the prior swing high. When price dips back into the zone, the EA goes **long**.
- **Bearish order block** — the last *up* candle before a close *below* the prior swing low. When price rallies back into the zone, the EA goes **short**.

Market structure (swing highs and lows) is located with a symmetric fractal pivot, so the entire system is candlestick / price-action only. Protective stops sit just beyond the order block (price-action based, with no ATR), and targets are set at a fixed reward-to-risk multiple. The result is asymmetric, well-defined-risk entries placed where smart-money flow typically resumes the prevailing trend.

How It Works

1. Market Structure — Swing Detection

The EA maintains a rolling window of recent closed bars (capped at 600). On every newly closed bar it scans for the most recent **confirmed fractal swing**. A swing high is a bar whose high is strictly greater than the `Pivot` highs on each side; a swing low is the mirror image on the lows. Because confirmation requires `Pivot` bars on *both* sides, a minimum of `2 × Pivot + 2` bars must exist before any signal can form.

2. Break of Structure → Order Block Creation

A trend shift is signalled when the most recently closed bar **closes beyond** the latest swing:

- **Bullish BOS** — close above the prior swing high. The EA scans back up to `ObSearchBars` candles for the last *down* candle (close < open). Its low & high define the bullish order block `[obLow, obHigh]`.
- **Bearish BOS** — close below the prior swing low. The EA scans back for the last *up* candle (close > open); its low & high define the bearish order block.

Each swing is only acted on **once**: the level that triggered a BOS is recorded so the same structure cannot fire repeatedly.

3. Zone Validity & Aging

An active zone is invalidated under either of two conditions:

- **Age** — more than `MaxZoneAgeBars` bars have passed since the zone was created.
- **Structural break** — a bullish zone is discarded if price closes *below* its low; a bearish zone is discarded if price closes *above* its high. A clean break through the block means the order flow it represented has failed.

4. Mitigation Entry

The EA holds **one position at a time** per symbol and magic number. With no position open and an active zone, it looks for price to mitigate (retrace into) the block on the just-closed bar:

- **Long** — the bar's low dips into the bullish zone (`low ≤ obHigh`) while its close holds above the base (`close ≥ obLow`). A market **BUY** is sent at the Ask.
- **Short** — the bar's high rallies into the bearish zone (`high ≥ obLow`) while its close holds below the top (`close ≤ obHigh`). A market **SELL** is sent at the Bid.

A zone is deactivated the moment it produces a trade, so each block is used only once.

5. Stops & Targets

Risk is defined entirely by the order block — no ATR, no fixed pip values:

- **Stop loss** sits just beyond the block, offset by `ZoneBufferPct` of the zone's height. For a long: $SL = obLow - (height \times ZoneBufferPct)$. For a short: $SL = obHigh + (height \times ZoneBufferPct)$.
- **Take profit** is placed at a fixed multiple of the measured risk: $TP = entry \pm (RiskReward \times risk)$, where `risk` is the distance from entry to stop.

Worked example (long)

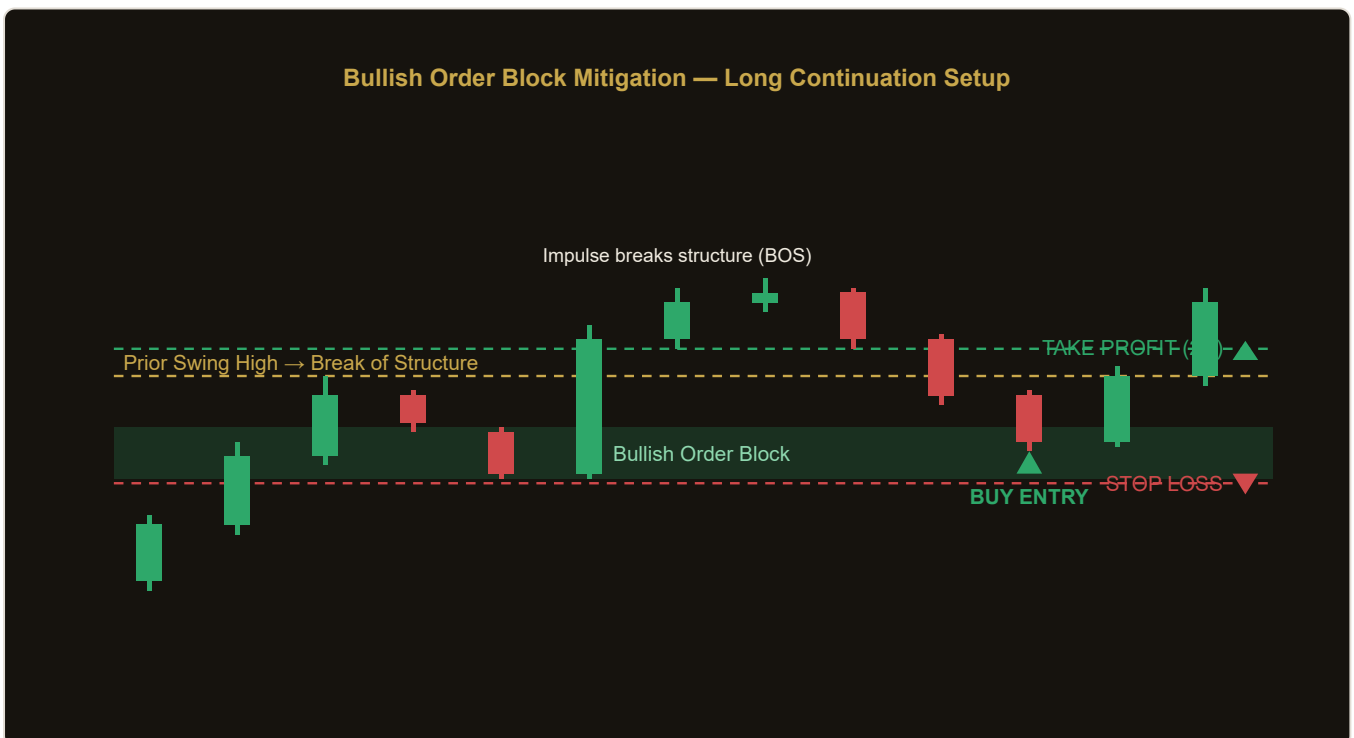
An order block spans 1.0830 – 1.0850 (height = 20 pips). With `ZoneBufferPct = 0.10`, the stop sits 2 pips below the base at 1.0828. If price mitigates and entry fills at 1.0840, the risk is 12 pips. With `RiskReward = 2.0`, the take profit is placed 24 pips above entry at 1.0864.

6. Execution Cadence

All logic runs **once per closed bar**. The EA watches the open time of the forming bar (shift 0); when it changes, the previous bar (shift 1) has just closed and is appended to the working series. This makes signals stable and free of intra-bar repainting.

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

Parameter	Default	Description
Pivot	3	Fractal pivot half-width — bars required on each side to confirm a swing high or low. Higher values yield fewer, more significant structure points. Range 2–8.
ObSearchBars	10	How many bars to scan back from the impulse when locating the last opposing candle (the order block). Range 3–30.
MaxZoneAgeBars	30	Maximum age of a zone, in bars. An unfilled zone older than this is invalidated and will no longer trigger entries. Range 5–100 (step 5).
RiskReward	2.0	Fixed reward-to-risk multiple used to place the take profit relative to the measured stop distance. Range 1.0–6.0 (step 0.5).
ZoneBufferPct	0.10	Stop-loss buffer expressed as a fraction of the zone height, placed just beyond the order block. Range 0.0–1.0 (step 0.05).
Lots	0.10	Fixed lot size sent with every order. Range 0.01–1.0 (step 0.05).
Magic	1001	EA magic number used to tag and isolate this strategy's positions.

Recommended Settings

Order Block Mitigation works best on liquid, trending instruments where structure is clean and impulsive moves are well defined. Intraday timeframes such as **M15 to H1** tend to produce the clearest order blocks while keeping zone aging manageable.

Note: Because the strategy trades continuation after a confirmed Break of Structure, it shines in trending conditions and can chop in tight, range-bound markets. Pair it with major FX pairs or index CFDs that respect structure, and avoid running it across thin, news-driven sessions where impulses are erratic.

TUNING GUIDANCE

- **Pivot** — raise it (4–5) to filter for only major swings; lower it (2–3) for more frequent, finer structure on faster timeframes.
- **ObSearchBars** — keep modest so the order block stays close to the impulse; large values can pick up stale candles unrelated to the move.
- **MaxZoneAgeBars** — shorten to demand prompt mitigation; lengthen if you want zones to remain valid through deeper, slower pullbacks.

- **RiskReward** — the default 2.0 balances hit-rate against payoff; higher multiples require stronger continuation to reach target.
- **ZoneBufferPct** — a small buffer (0.05–0.15) keeps stops tight against the block; increase it to survive wicks that overshoot the zone.

Starting preset

`Pivot = 3` , `ObSearchBars = 10` , `MaxZoneAgeBars = 30` , `RiskReward = 2.0` , `ZoneBufferPct = 0.10` ,
`Lots = 0.10` . Always forward-test on a demo account before committing capital, and size `Lots` to your own risk tolerance.

How to Install on MetaTrader 5

- 1 Copy `OrderBlockMitigation.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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