

Displacement Order Block Retest

Expert Advisor Documentation

PLATFORM

MetaTrader 5 (MT5)

TYPE

Price Action — ICT Order Block

TIMEFRAME

M15 – H1

WEBSITE

www.algotbot.live

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Overview

Displacement Order Block Retest is a pure price-action Expert Advisor built on the ICT (Inner Circle Trader) concept of institutional order blocks. It uses **no indicators of any kind** — every decision is derived from raw candle geometry: market structure, candle bodies, and the size of an impulsive move.

The core premise is that institutions accumulate positions inside the *last opposing candle* before a sharp, impulsive leg that breaks market structure. That candle is the **order block**. Price very often returns ("retraces") into the block to fill resting orders before the trend continues. Rather than chasing the impulsive move, this EA anticipates that retrace by parking a resting **limit order** inside the block, so it gets filled with tight, structure-defined risk.

The strategy combines three filters that distinguish it from a plain "tap the zone" order-block system: a confirmed **break of structure** (a close beyond the rolling swing extreme), a genuine **displacement** requirement (the breakout candle must be impulsive in both range and body dominance), and a **refined order block** defined by the candle *body* rather than its full wick range. A tunable **entry-depth knob** then lets the trader trade fill-rate against entry price.

Key idea: A structure-breaking displacement signals real directional intent. The fresh order block left behind by that move is where institutional flow typically resumes the trend — offering a precise, tightly-stopped entry with an asymmetric fixed reward-to-risk payoff.

How It Works

1. Market Structure — Break of Structure (BOS)

On each newly-closed bar, the EA computes the rolling swing extremes over the last `SwingLookback` bars (excluding the just-closed candle). A break of structure occurs when the just-closed candle **closes** beyond that extreme — above the prior swing high (bullish) or below the prior swing low (bearish). A close, not a wick, is required, ensuring a clean directional shift rather than a noisy probe.

2. Displacement Filter

The breakout candle must be genuinely impulsive. Two conditions must both hold:

- **Range expansion:** the candle's high-to-low range must be at least `DisplacementMult` × the mean range of the previous `AvgRangeBars` bars.
- **Body dominance:** the candle body (open-to-close) must be at least 50% of its total range.

Weak or indecisive breaks are ignored, filtering out low-conviction structure breaks.

3. Refined Order Block

Once a valid displacement is confirmed, the EA walks back up to `12` bars to find the most recent *opposing* candle: the last **down-close** candle before a bullish break, or the last **up-close** candle before a bearish break. The order block is defined as the **body** (open...close) of that candle — a tighter institutional footprint than the full wick range.

4. Entry — Resting Limit Order

A limit order is parked inside the block at a tunable depth set by `EntryDepth` :

- **0.0** — proximal edge (nearest to price; highest fill rate)
- **0.5** — consequent encroachment / the 50% midpoint of the block
- **1.0** — distal edge (deepest; best price, lowest fill rate)

A **buy-limit** is placed inside the bullish order block (it must rest below the current Ask, and price must not already be inside the block). A **sell-limit** mirrors this above the current Bid.

Parameters

Parameter	Default	Description
SwingLookback	12	Number of bars used to compute the rolling swing high/low that defines market structure. A close beyond this extreme is a break of structure. Range 5–40.
AvgRangeBars	14	Number of bars used to compute the mean candle range (the volatility baseline against which displacement is measured). Range 5–40.
DisplacementMult	1.8	The breakout candle's range must be at least this multiple of the average range to qualify as a displacement. Higher = stricter, fewer but stronger signals. Range 1.0–4.0.
EntryDepth	0.50	How deep into the order block the limit rests: 0 = proximal edge (highest fill rate), 0.5 = 50% / consequent encroachment, 1 = distal edge (best price). Range 0.0–1.0.
StopBufferPct	0.20	Stop-loss buffer placed beyond the block's far edge, expressed as a fraction of the block height. Range 0.0–1.0.
RiskReward	2.0	Fixed reward-to-risk ratio used to set the take profit. 2.0 means the target is twice the stop distance. Range 1.0–6.0.
ExpiryBars	12	A resting limit order is cancelled if it is not filled within this many bars. Range 3–50.
Lots	0.10	Fixed trade volume in lots. Range 0.01–1.0.
Magic	1001	Magic number used to identify and manage this EA's own orders and positions.

Recommended Settings

The strategy is a structure-and-displacement system, so it performs best on instruments and timeframes that produce clean impulsive legs and respect order blocks. The defaults are a sensible balanced starting point.

SUGGESTED BASELINE

- **Symbols:** Liquid majors (EUR/USD, GBP/USD, USD/JPY) and index CFDs that trend cleanly.
- **Timeframe:** M15 to H1 — large enough to filter intrabar noise, small enough to produce frequent setups.
- **EntryDepth:** Keep at **0.50** for a balance of fill-rate and price. Lower it toward **0.0** for more fills (entries nearer the block edge); raise toward **1.0** for better prices at the cost of missed setups.

- **DisplacementMult:** `1.8` is balanced. Raise to `2.2-2.5` on noisier instruments to demand stronger breaks.
- **RiskReward:** `2.0` by default. Lower R:R fills targets more often; higher R:R yields larger but rarer wins.

Tuning tip: `EntryDepth` is the primary trade-off knob. Shallow depth fills more often but with looser entries; deep depth gives the best entry price but frequently leaves the order unfilled, especially in fast trends that do not retrace deeply. Backtest both extremes on your symbol before committing.

Walk-forward first. Always validate any parameter set on out-of-sample data before live deployment. Order-block behaviour differs markedly across instruments and market regimes, and a setting optimised on one period may not generalise.

How to Install on MetaTrader 5

- 1 Copy `DisplacementOrderBlockRetest.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

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