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Base Departure Retest

Expert Advisor Documentation

PLATFORM	TYPE	TIMEFRAME	WEBSITE
MetaTrader 5 (MT5)	Price Action — Supply & Demand	H1 / M15	www.algobot.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

Base Departure Retest is a pure price-action Expert Advisor that maps supply and demand zones directly from raw candle structure — no moving averages, oscillators, or other indicators are involved. It is built on the classic *Rally-Base-Rally* and *Drop-Base-Drop* framework used by manual supply & demand traders.

The EA continuously watches for a tight consolidation candle (a **base**) that is immediately followed by a strong impulsive candle (a **departure**) breaking decisively out of that base. The base candle's price range is recorded as a fresh zone — a **demand** zone if price departed upward, or a **supply** zone if it departed downward. The EA then waits patiently for price to return to that zone. Only when price retests the zone and prints a rejection candle in the zone's favour does it enter, placing a protective stop just behind the zone's distal edge and a take-profit at a fixed reward-to-risk multiple.

Every zone is traded at most once and automatically expires after a configurable number of bars, keeping the EA focused on fresh, unmitigated structure rather than stale levels.

> **Design philosophy.** Because every decision is derived from price alone, the strategy is timeframe- and symbol-agnostic. All thresholds (impulse strength, base tightness, stop buffer) are expressed relative to the recent *average candle range*, so the logic adapts automatically to changing volatility instead of relying on fixed pip values.

How It Works

1. Measuring the volatility basis

On each newly-closed bar the EA computes the **average High–Low range** over the most recent `BasisPeriod` candles (measured over the window *before* the candidate base candle). This average becomes the yardstick against which "small base" and "strong departure" are judged, so the same parameters behave consistently across calm and volatile conditions.

2. Zone formation (Base → Departure)

The EA inspects the two most recently closed candles — the **base candidate** and the **departure candidate** that follows it:

- **Base test:** the base candle's range must be small — no larger than `BaseMaxRangeFactor × avgRange`.
- **Departure test:** the very next candle must be a strong impulsive body — its body must be at least `ImpulseFactor × avgRange` — and it must close *beyond* the base.

When both conditions are met, the base candle's High and Low are stored as a new zone:

- A bullish departure that closes **above** the base high → a **Demand zone** (look for longs on retest).
- A bearish departure that closes **below** the base low → a **Supply zone** (look for shorts on retest).

3. Retest entry

Once a zone exists, the EA evaluates each just-closed candle to see whether price has returned and rejected the zone. A trade is taken only while the account is flat (one position at a time per symbol/magic) and the zone is not being evaluated on its own departure bar.

> **Demand zone (long) entry**
>
> The candle's low must reach into the zone (`low ≤ zoneHigh`), and the candle must close as a bullish rejection (`close > open` and `close ≥ zoneLow`). Entry is at the current
> **Ask**
>
> . If price instead closes below the zone low, the zone is considered broken and discarded.

> **Supply zone (short) entry**
>
> The candle's high must reach into the zone (`high ≥ zoneLow`), and the candle must close as a bearish rejection (`close < open` and `close ≤ zoneHigh`). Entry is at the current
> **Bid**
>
> . If price instead closes above the zone high, the zone is broken and discarded.

4. Stops, targets & risk geometry

- **Stop loss** sits just beyond the zone's distal edge plus a buffer: for longs, `SL = zoneLow − (BufferFactor × avgRange)`; for shorts, `SL = zoneHigh + (BufferFactor × avgRange)`.
- **Risk** is the distance from entry to stop.
- **Take profit** is a fixed reward-to-risk multiple: `TP = entry ± (RewardRisk × risk)`.
- If the computed risk is not positive the trade is skipped, avoiding degenerate orders.

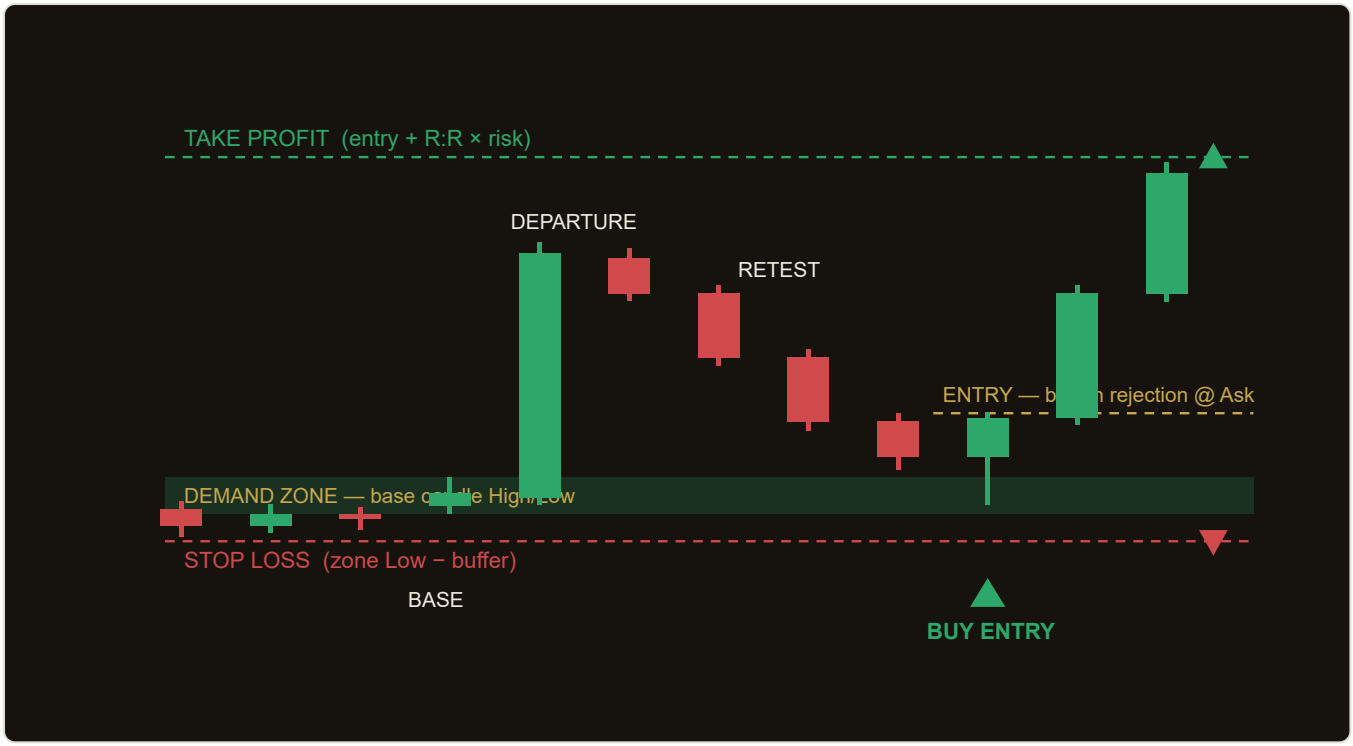
5. Zone lifecycle & housekeeping

- Each zone is removed the moment it is traded — it is a **one-shot** level.
- Zones automatically **expire** after `ZoneLifetimeBars` bars if never retested.
- Zones are discarded if price closes through them (broken structure).
- The EA keeps only the freshest 64 zones and bounds its bar history, so it runs efficiently on long backtests and live charts alike.

> **One bar, one decision.** All logic runs once per newly-closed bar (detected via a new-bar guard). This makes behaviour deterministic and identical between the C# research engine and the deployed MQL5 Expert Advisor.

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. It depicts a **demand zone**: a tight base, a strong bullish departure, then a retest where a bullish rejection candle triggers a long entry.



Illustrative example only. Actual market behaviour varies.

Parameters

Parameter	Default	Description
ImpulseFactor	`2.0`	Minimum departure-candle body, as a multiple of the average candle range, required to qualify as a strong impulse. Range 1.5–4.0, step 0.1. Higher values demand more explosive departures and produce fewer, higher-quality zones.
BaseMaxRangeFactor	`0.6`	Maximum base-candle range, as a multiple of the average candle range, for the candle to count as a tight base. Range 0.3–1.2, step 0.1. Lower values insist on tighter consolidations.
RewardRisk	`2.0`	Reward-to-risk multiple used to set the take-profit distance relative to the entry-to-stop risk. Range 1.0–4.0, step 0.5.
ZoneLifetimeBars	`40`	Number of bars a zone stays active before it expires if never retested. Range 10–120, step 5.
BufferFactor	`0.25`	Stop-loss buffer beyond the zone's distal edge, as a multiple of the average candle range. Range 0.0–1.0, step 0.05. Larger buffers reduce premature stop-outs at the cost of wider risk.
BasisPeriod	`20`	Lookback window (in candles) used to compute the average High–Low range that drives all relative thresholds. Range 10–50, step 5.
Lots	`0.10`	Fixed trade volume in lots. Range 0.01–1.0, step 0.05.
Magic	`7401`	Magic number used to tag and identify this EA's orders and open positions, keeping them isolated from other EAs on the account.

Recommended Settings

The defaults are a balanced starting point for liquid FX majors on intraday charts. Because every threshold is volatility-relative, the same settings transfer reasonably well across symbols and timeframes — but always validate on your own data first.

- **Symbol:** liquid major FX pairs (e.g. EURUSD, GBPUSD) or major indices with clean structure.
- **Timeframe:** H1 for swing-style setups; M15 for more frequent intraday zones.
- **ImpulseFactor / BaseMaxRangeFactor:** keep near defaults (2.0 / 0.6) for selective, high-conviction zones. Lower the impulse to 1.5–1.8 if you want more signals on quieter instruments.
- **RewardRisk:** 2.0 is a sensible default. Raising it improves payoff per win but lowers hit rate.

- **ZoneLifetimeBars:** 40 suits H1; consider raising it on slower timeframes where retests take longer to develop.
- **Lots:** set according to your account size and risk tolerance — the EA uses a fixed volume and does not auto-size positions.

> **Tip.** Use the MT5 Strategy Tester to optimise `ImpulseFactor`, `BaseMaxRangeFactor`, and `RewardRisk` together on a representative date range, then forward-test the chosen set on out-of-sample data before going live.

> **Position sizing is fixed.** This EA trades a constant `Lots` volume and does not scale risk to account equity or stop distance. Since stop distance varies with volatility, monetary risk per trade will vary too. Size conservatively and review your exposure regularly.

How to Install on MetaTrader 5

1. Copy `BaseDepartureRetest.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.