

# Walsh Baseline Trend Reclaim

Expert Advisor Documentation

## PLATFORM

MetaTrader 5 (MT5)

## TYPE

Trend-Following Pullback

## TIMEFRAME

M15 – H1

## WEBSITE

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

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## Overview

**Walsh Baseline Trend Reclaim** is a with-trend pullback Expert Advisor whose single distinctive feature is the baseline it trades around. Instead of an EMA, SMA, median, or regression line, the fair-value trend line is the **Hodges–Lehmann location estimator** of the last `WindowLen` closes — the median of all pairwise averages of those closes:

```
fairValue = median{ (close_i + close_j) / 2 , for all i ≤ j }
```

Those pairwise averages are the *Walsh averages*, and their median is the location estimator that sits behind the Wilcoxon signed-rank test. It is roughly **95% as statistically efficient as the arithmetic mean** on clean data, yet is extraordinarily robust to outliers, with a breakdown point of about **29%**. In FX terms, a single news wick or spike bar barely moves the line — so the baseline does not lurch, pullback signals stay clean, and the whipsaw entries that are the main source of drawdown in pullback systems are heavily suppressed.

The strategy is fully symmetric for longs and shorts. A robust, spike-immune slope of the baseline defines the trend and gates out chop; a genuine pullback-and-reclaim of the baseline (not a chase) triggers the entry; and a tight structural stop, break-even lock, and one-directional ATR trail keep drawdown minimal. It runs on a single, backtest-selected timeframe and is designed with liquid FX majors and metals on **M15–H1** in mind.

**Why the Hodges–Lehmann baseline?** A conventional moving average is dragged around by every outlier bar. The Walsh-average median ignores extreme wicks and spikes almost entirely while remaining nearly as responsive as a mean on normal price action — giving a stable line to measure trend and pullback against, without the lag of a heavily smoothed filter.

## How It Works

### The Robust Baseline

On every newly-closed bar the EA builds the Walsh-average buffer from the last `WindowLen` closes. For a window of `W` closes there are  $W \times (W+1) / 2$  pairwise averages; these are sorted and their median becomes the current baseline value ( `locNow` ). The same computation is repeated for the window ending `SlopeLen` bars earlier ( `locPast` ).

### Trend Filter (Robust Slope)

The trend is read from the difference between the two baseline values, `slope = locNow - locPast` . Because both endpoints are spike-immune, the slope is a very stable directional read. To count as a real trend it must clear a volatility-scaled threshold:

- **Up-trend** — `slope ≥ SlopeMinAtr × ATR` → only **long** setups are considered.
- **Down-trend** — `slope ≤ -SlopeMinAtr × ATR` → only **short** setups are considered.
- **No trend** — slope inside the band → the EA stands aside (this single gate filters out chop).

### Entry Logic — Pullback & Reclaim

The EA never chases price; it waits for a dip back into value that is then reclaimed by the just-closed bar.

#### LONG ENTRY

- Trend is up.
- The just-closed bar's **low dips to or below** the baseline (pullback into value).
- The bar **closes back above** the baseline (reclaim).
- The close is a **bullish body** ( `Close > Open` ).
- It is **not over-extended** — the close is within `EntryMaxAtr × ATR` of the line.
- Buy the reclaim at the Ask.

#### SHORT ENTRY

- Trend is down.
- The just-closed bar's **high pokes to or above** the baseline.

- The bar **closes back below** the baseline.
- The close is a **bearish body** (  $\text{Close} < \text{Open}$  ).
- It is not over-extended — the close is within  $\text{EntryMaxAtr} \times \text{ATR}$  of the line.
- Sell the reclaim at the Bid.

## Exit Logic & Risk Management

Risk control is built for minimal drawdown and manages every exit automatically:

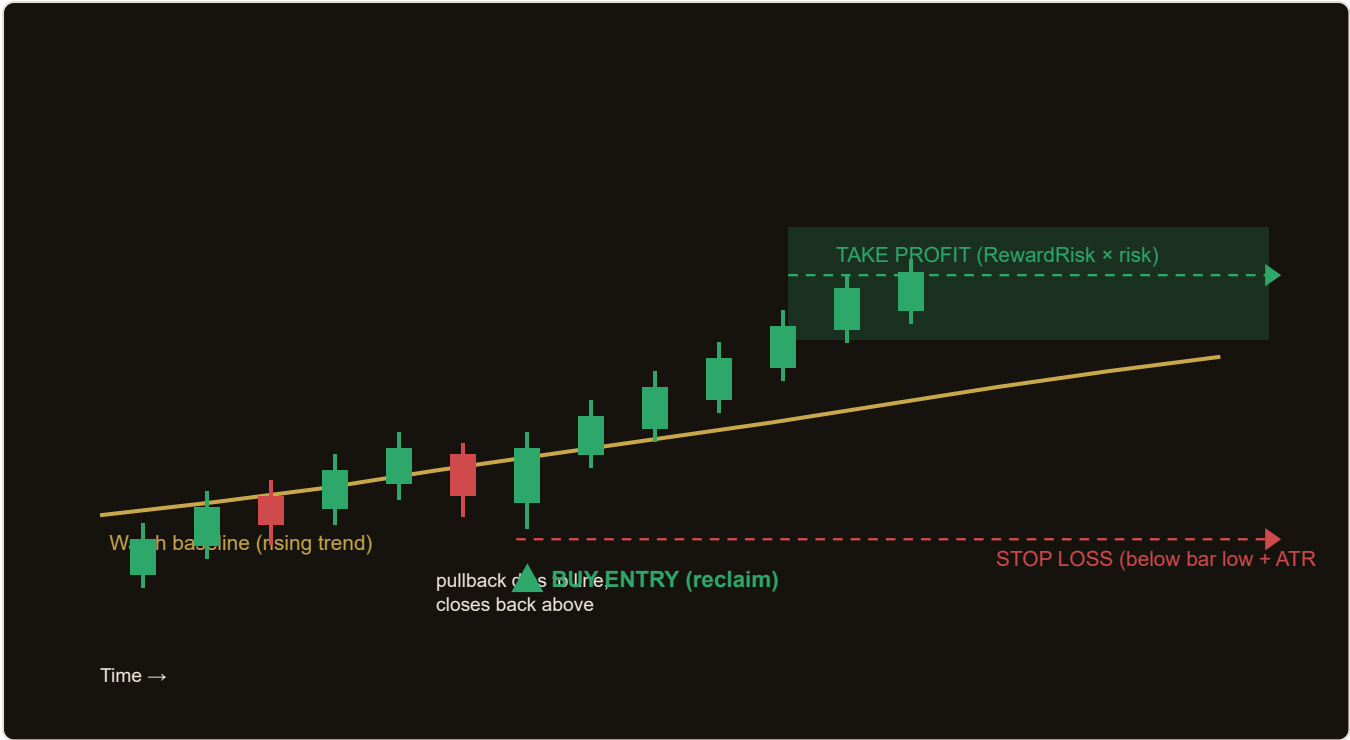
- **Structural stop** — the stop hides just beyond the reclaim bar's extreme (its low for longs, high for shorts), plus a small buffer of  $\text{StopBufAtr} \times \text{ATR}$  .
- **Oversized-risk skip** — if that structural stop distance exceeds  $\text{MaxRiskAtr} \times \text{ATR}$  , the setup is skipped entirely, so no oversized stop is ever taken.
- **Fixed reward:risk target** — the take-profit is placed at  $\text{RewardRisk}$  multiples of the structural stop distance.
- **Break-even lock** — once price is  $\text{BreakevenAtr} \times \text{ATR}$  in profit, the stop jumps to the entry price; the trade can no longer lose.
- **ATR trailing stop** — beyond break-even, an ATR trail (  $\text{TrailAtr} \times \text{ATR}$  ) rides behind price, only ever tightening, to lock in gains.
- **One position per magic** — a single open trade at a time; the stop, trail, and target manage the exit.

**Spread guard.** New entries are skipped whenever the current spread exceeds  $\text{MaxSpreadPoints}$  , protecting the strategy from poor fills during illiquid or news-driven conditions.

## 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                                                                                                  |
|-----------------|---------|--------------------------------------------------------------------------------------------------------------|
| WindowLen       | 24      | Number of closes used to build the robust Hodges–Lehmann (Walsh-average) baseline. Range 8–60, step 2.       |
| SlopeLen        | 6       | How many bars back the second baseline is measured for the robust slope. Range 2–20, step 1.                 |
| SlopeMinAtr     | 0.15    | Minimum baseline slope (in ATR units over SlopeLen) required to confirm a trend. Range 0.02–0.80, step 0.01. |
| AtrPeriod       | 14      | ATR lookback for the volatility-scaled thresholds, stops and the trail. Range 5–30, step 1.                  |
| StopBufAtr      | 0.5     | Stop buffer beyond the reclaim bar's extreme, in ATR units. Range 0.0–2.0, step 0.1.                         |
| EntryMaxAtr     | 0.6     | Reject entries whose close is already more than this (ATR) past the line. Range 0.1–2.0, step 0.1.           |
| MaxRiskAtr      | 2.5     | Skip the setup if structural risk exceeds this multiple of ATR. Range 0.5–6.0, step 0.5.                     |
| RewardRisk      | 1.6     | Take-profit as a reward:risk multiple of the structural stop distance. Range 0.8–4.0, step 0.1.              |
| BreakevenAtr    | 1.0     | Move the stop to break-even once this much ATR of profit is reached. Range 0.2–3.0, step 0.1.                |
| TrailAtr        | 2.0     | ATR distance the trailing stop rides behind price once past break-even. Range 0.5–5.0, step 0.1.             |
| MaxSpreadPoints | 80      | Skip new entries when the current spread (in points) is wider than this. Range 5–300, step 5.                |
| Lots            | 0.10    | Order volume (fixed lot size). Range 0.01–1.0, step 0.05.                                                    |
| Magic           | 5150    | Magic number identifying this EA's positions. Range 0–9,999,999, step 1.                                     |

## Recommended Settings

The default parameters are tuned for liquid FX majors and metals on the M15–H1 timeframes. Use the guidance below as a starting point and always validate on your own broker's data before deploying to a live

account.

## Instruments & Timeframe

- **Symbols:** liquid FX majors (EURUSD, GBPUSD, USDJPY) and metals (XAUUSD).
- **Timeframe:** M15 to H1. Nothing is hardcoded to a timeframe — the EA runs on whatever chart timeframe it is attached to.

## Tuning Notes

- **WindowLen** — a larger window produces a smoother, more robust baseline that responds more slowly; a smaller window reacts faster but is noisier. 20–30 is a balanced range.
- **SlopeMinAtr** — raise it to demand stronger, cleaner trends (fewer but higher-quality signals); lower it to trade shallower trends.
- **EntryMaxAtr** — keep this modest so the EA buys reclaims close to the line rather than chasing extended bars.
- **RewardRisk** and **TrailAtr** — a higher reward:risk favours fewer, larger winners; a tighter trail banks profit sooner. Balance them to your risk appetite.

### Example configuration — EURUSD M15

WindowLen 24, SlopeLen 6, SlopeMinAtr 0.15, AtrPeriod 14, StopBufAtr 0.5, EntryMaxAtr 0.6, MaxRiskAtr 2.5, RewardRisk 1.6, BreakevenAtr 1.0, TrailAtr 2.0, MaxSpreadPoints 80, Lots 0.10. A conservative, drawdown-focused baseline profile that only takes well-formed reclaims inside a confirmed trend.

**Position sizing.** The **Lots** parameter is a fixed volume and does not scale to account equity. Choose a lot size appropriate for your balance and risk tolerance, and test thoroughly in the Strategy Tester and on a demo account before trading live.

## How to Install on MetaTrader 5

- 1 Copy `WalshBaselineTrendReclaim.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

**Tip.** Before going live, run the EA in the MT5 Strategy Tester across several months of history on your target symbol and timeframe. Confirm the baseline slope and reclaim signals behave as expected on your broker's spread and data before committing real capital.

## Risk Warning

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