

Three Line Break Reversal

Expert Advisor Documentation

PLATFORM

MetaTrader 5 (MT5)

TYPE

Trend Reversal (Stop-and-Reverse)

TIMEFRAME

H1 / H4 (configurable)

WEBSITE

www.algobot.live

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Overview

Three Line Break Reversal is a trend-flip system built on the classic *Three Line Break* (3LB) chart transform popularised by Steve Nison. Instead of plotting one bar per unit of time, a 3LB chart draws a running sequence of price "lines" (blocks). While a trend is intact, any close that pushes to a fresh extreme simply extends the current line in the same direction, and any wiggle that fails to make a new extreme is discarded entirely. This is what lets the chart hold its regime through choppy conditions that would whipsaw a moving-average system.

The trend only **flips** when a close breaks beyond the extreme of the last N lines (classically three — hence "Three Line Break"). Because a reversal must overcome the combined range of several prior blocks, a flip is a genuine regime change rather than a single-bar wiggle. The EA trades those flips directly as a **stop-and-reverse trend follower**: when the block trend turns up it goes long, when it turns down it goes short, always closing the opposite position first.

What this is not. Three Line Break is *not* Renko (which uses a fixed brick size), *not* a Darvas box, and *not* the "three line strike" candlestick pattern. In 3LB the line sizes are variable and defined by real close extremes, and reversals are gated by the multi-line break rule. The only indicator used is ATR — purely for sizing the reversal noise buffer and the protective stop / take-profit.

How It Works

Building the block structure

On every newly-closed bar of the primary timeframe, the EA feeds the bar's **close price** into a running list of 3LB blocks (each block has a top, a bottom, and a direction of `+1` up or `-1` down):

- **Seeding.** The first two closes create the first block. If the second close is above the first, the opening block is an up-line; if below, a down-line. Seeding never trades.
- **Continuation.** In an up-run, a close above the last block's top appends a new up-block (the trend extends). In a down-run, a close below the last block's bottom appends a new down-block. Closes that stay inside the current block are ignored — this is the noise filter.
- **The break window.** The consecutive same-direction blocks at the tail form the current run. The rule looks back `k = min(LinesToBreak, runLength)` blocks. Because up-lines have monotonically rising bottoms and down-lines have monotonically falling tops, the earliest block in that window carries the level a reversal must clear.

Entry logic (the flip)

- **Long (flip UP):** after a *down* run, a close breaks **above** the highest top of the last N lines, exceeding it by the ATR noise buffer (`close > breakTop + ReversalAtrFrac × ATR`). The block trend flips up → **buy**.
- **Short (flip DOWN):** after an *up* run, a close breaks **below** the lowest bottom of the last N lines, exceeding it by the ATR noise buffer (`close < breakBottom - ReversalAtrFrac × ATR`). The block trend flips down → **sell**.

Exit logic & risk

Every position carries a protective stop and a take-profit sized from ATR at entry, and can also be closed early by the stop-and-reverse mechanism:

- **Stop-and-reverse.** On each new flip the EA first closes any existing position tagged with its magic number, then opens the fresh position in the new direction. A position therefore never survives a trend flip.
- **Protective stop.** `SL = entry ∓ AtrStopMult × ATR` (below entry for longs, above for shorts).
- **Take-profit.** `TP = entry ± AtrTpMult × ATR` (above entry for longs, below for shorts).

```
// Long flip
entry = Ask
SL    = entry - AtrStopMult * ATR
TP    = entry + AtrTpMult  * ATR

// Short flip
entry = Bid
SL    = entry + AtrStopMult * ATR
TP    = entry - AtrTpMult  * ATR
```

One action per closed bar. The EA evaluates only on the freshly-closed bar (shift 1); the forming bar is never used for signals. This keeps decisions stable and repaint-free. ATR is read from the same closed bar, and only `ATR > 0` is accepted before any trade logic runs.

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.

Reading the illustration

A down-run of blocks (red candles) pushes price to a fresh low. Price then rallies, but nothing trades until a close clears the **gold 3-line break level** by the ATR buffer. That break flips the block trend up → the EA closes any short and opens a **long**, placing the stop $2 \times \text{ATR}$ below entry and the target $3 \times \text{ATR}$ above. Because it is stop-and-reverse, a later downward flip would both exit this long and open a new short.

Parameters

Parameter	Default	Description
LinesToBreak	3	How many prior lines a close must break to flip the trend. Classic Three Line Break uses 3. Lower values (2) flip sooner and trade more; higher values (4–5) demand a stronger reversal. Range 2–5, step 1.
ReversalAtrFrac	0.25	Reversal noise buffer. The breaking close must exceed the break level by this fraction of ATR, filtering marginal pokes through the level. Range 0.0–1.5, step 0.05.
AtrPeriod	14	Averaging period for ATR, which sizes the reversal buffer and the stop / take-profit distances. Range 5–30, step 1.
AtrStopMult	2.0	Protective stop distance as a multiple of ATR from entry. Larger values give the trade more room but risk more per trade. Range 0.5–5.0, step 0.25.
AtrTpMult	3.0	Take-profit distance as a multiple of ATR from entry. A flip also exits the trade via stop-and-reverse. Range 0.5–8.0, step 0.25.
Lots	0.10	Fixed trade volume in lots for each new position. Range 0.01–1.0, step 0.05.
Magic	3033	Magic number that tags this EA's positions so its stop-and-reverse / close-all logic only touches its own trades. Set a unique value per chart if you run several instances.

Recommended Settings

Three Line Break Reversal is timeframe-agnostic — every read uses the chart's primary timeframe, so the same EA can be applied wherever it is dropped. As a trend-flip / stop-and-reverse system it performs best on instruments and timeframes that produce sustained directional runs rather than tight ranging noise.

SUGGESTED STARTING POINT

- **Symbols:** trending major FX pairs (e.g. EUR/USD, GBP/USD, USD/JPY) or index CFDs.

- **Timeframe:** H1 or H4 — high enough that block flips represent meaningful regime changes.
- **LinesToBreak:** keep the classic `3`; drop to `2` for faster, more reactive flips, or raise to `4–5` to demand stronger reversals in noisier markets.
- **ReversalAtrFrac:** `0.25` is a balanced buffer; increase toward `0.5–0.75` to suppress marginal breaks in choppy conditions.
- **Risk:** start with `AtrStopMult 2.0` / `AtrTpMult 3.0` (a 1.5:1 reward-to-risk profile), then tune to the instrument.

Tip — match the buffer to the noise. The reversal buffer and the stop are both scaled by ATR, so they self-adapt to volatility. If you still see frequent false flips, raise `ReversalAtrFrac` and/or `LinesToBreak` before touching the fixed lot size. Always validate on the Strategy Tester over a representative history before going live.

Whipsaw risk. Like every trend-flip system, this EA can be repeatedly stopped-and-reversed during extended sideways markets, producing a string of small losses. The multi-line break rule and ATR buffer reduce this but cannot eliminate it. Prefer trending regimes and confirm behaviour in backtests.

How to Install on MetaTrader 5

- 1 Copy `ThreeLineBreakReversal.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.