Algobot
Maximize Your Profits

Body Channel Breakout

Expert Advisor Documentation

PLATFORM	TYPE	TIMEFRAME	WEBSITE
MetaTrader 5 (MT5)	Trend-Following Breakout	M15 – H1	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

Body Channel Breakout is a trend-following breakout Expert Advisor that trades a *body channel* rather than the usual high/low (Donchian) channel. The core idea comes from auction theory: a candle's **body** (open → close) is the range of price the market *accepted* during that bar, while its **wicks** are excursions the market probed and then *rejected*.

Ordinary channel breakouts trigger on wick extremes, so they are constantly tripped by stop-runs and one-tick pokes that immediately snap back. Body Channel Breakout draws its envelope only from bodies:

```
upperBody = highest max(Open, Close) over the last ChannelLength bars
lowerBody = lowest  min(Open, Close) over the last ChannelLength bars
```

A breakout is registered only when a fresh candle **closes its whole body** beyond that body channel — a genuine shift in accepted value — instead of merely wicking through it. That single filter removes the bulk of false breaks. Signals are further gated by an EMA trend filter (slope + side) and a decisive "acceptance" bar whose body fills a minimum fraction of its range.

Design intent: The EA is built with liquid FX and index trends in mind (for example EURUSD, GBPUSD, or US500 on M15–H1), but the timeframe is never hardcoded — every calculation uses the chart's own timeframe, so it runs on whatever period the chart or backtest selects.

How It Works

The strategy operates on completed bars only. On each newly closed candle it refreshes the ATR, rebuilds the body channel over the preceding `ChannelLength` bars, checks the EMA trend gate, and evaluates the just-closed candle as a potential breakout bar. Position management (breakeven and trailing) runs on every tick.

The Body Channel

The channel is measured over the `ChannelLength` bars *preceding* the breakout candle. For every bar the top and bottom of its body are taken, and the highest body-top and lowest body-bottom define the envelope:

- **Upper body level** — the highest `max(Open, Close)` in the lookback window.
- **Lower body level** — the lowest `min(Open, Close)` in the lookback window.

Because wicks are ignored, the channel represents the zone of accepted value, not the extremes the market rejected.

Trend Gate

An EMA of period `TrendEmaPeriod` acts as a two-part filter. The EMA's value now is compared against its value `SlopeLook` (3) bars earlier to measure slope, and price must sit on the correct side of the EMA:

- **Uptrend** — EMA now > EMA 3 bars ago *and* the breakout candle closes above the EMA.
- **Downtrend** — EMA now < EMA 3 bars ago *and* the breakout candle closes below the EMA.

Entry Logic

Entries are fully symmetric between long and short. A signal fires when all conditions align on the just-closed candle:

LONG ENTRY

- EMA is sloping up and price is above it (trend gate).
- The just-closed candle is bullish (`Close > Open`).
- Its body fills at least `MinBodyFrac` of its total range — a decisive, low-wick "acceptance" bar.
- Its close prints **above the upper body channel**.

SHORT ENTRY

- EMA is sloping down and price is below it (trend gate).
- The just-closed candle is bearish (`Close < Open`).
- Its body fills at least `MinBodyFrac` of its total range.
- Its close prints **below the lower body channel**.

> **Example — long breakout**
>
> After nine bars of chop trapped inside the body channel, a strong bullish candle closes its entire body above the upper body level while the EMA is rising and price is above it. The body accounts for 70% of the candle's range (well over a 0.55 minimum), confirming acceptance rather than a wick poke. The EA buys at the ask, places a tight stop just under the broken level, and targets 2× the risk.

Stop Loss, Take Profit & Risk Filter

- **Stop loss** sits just past the broken body level — the natural "failed breakout" invalidation — buffered by `AtrStopBuffer × ATR` for a tight structural stop.
- **Chase rejection** — if the resulting entry-to-stop risk exceeds `MaxRiskAtr × ATR`, the trade is skipped. This keeps per-trade loss uniform and prevents chasing extended breakouts.
- **Take profit** is placed at `RewardRisk × risk` above (long) or below (short) the entry.

Position Management

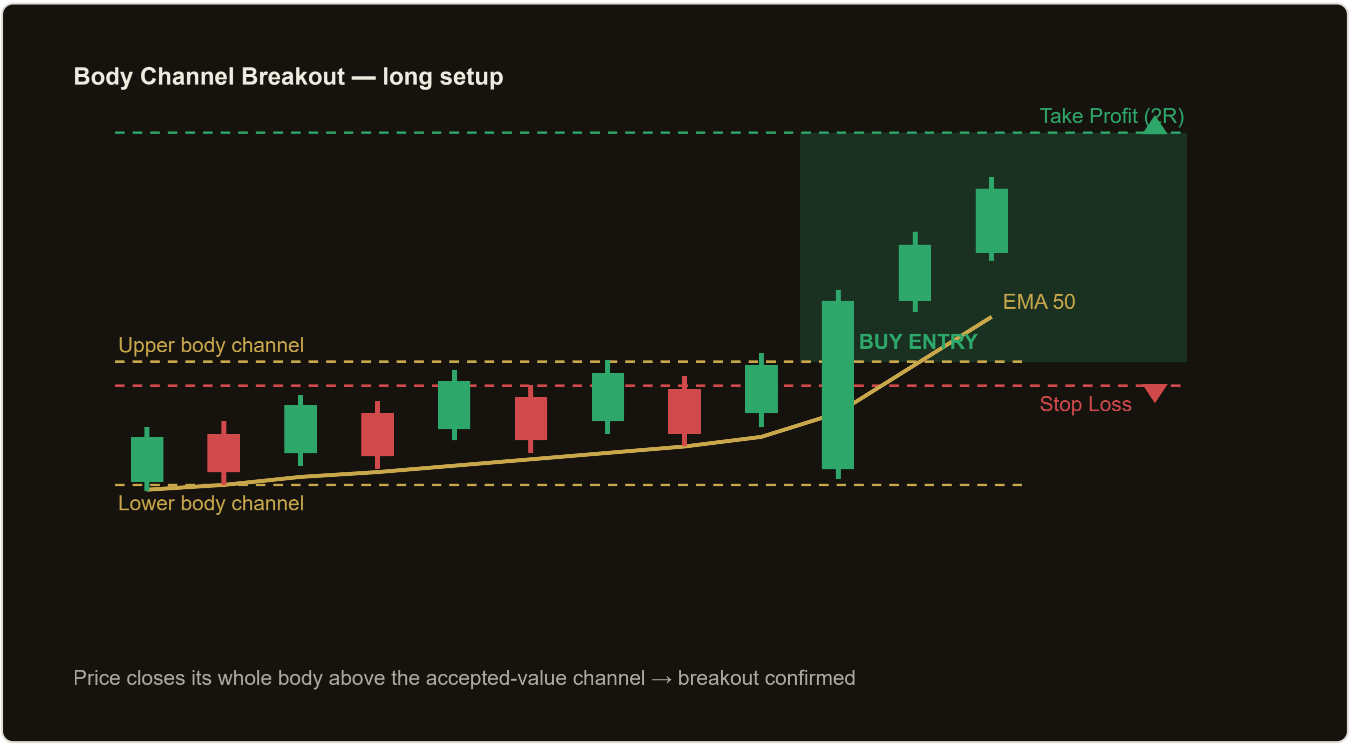
Only one position per Magic number is allowed at a time — the EA never stacks entries. Once open, the trade is protected in two stages, evaluated every tick:

1. **Breakeven at +1R** — when price moves one full risk unit (`BreakevenR = 1.0`) in favour, the stop is pulled to the entry price, removing downside.
2. **ATR chandelier trail** — thereafter the stop trails the best price by `TrailAtrMult × ATR`, but never loosens (it only ratchets toward price), locking in gains while capping giveback.

> **Low-drawdown design:** the combination of a tight structural stop, a hard per-trade risk cap, and breakeven-then-trail management is intended to keep individual losses small and uniform while letting winners run in a genuine trend.

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
ChannelLength	`20`	Lookback in bars for the body channel envelope. Range 8–40, step 2. Shorter reacts faster; longer needs a broader consolidation before a break.
TrendEmaPeriod	`50`	EMA period used as the trend gate (slope + side). Range 20–150, step 5. Higher filters to only larger trends.
MinBodyFrac	`0.55`	Minimum body/range of the breakout candle — the "acceptance" filter. Range 0.30–0.80, step 0.05. Higher demands a more decisive, low-wick bar.
AtrPeriod	`14`	ATR period used for the stop buffer and the trailing distance. Range 7–30, step 1.
AtrStopBuffer	`0.30`	Extra buffer beyond the broken body level for the stop, in ATR multiples. Range 0.0–1.5, step 0.05.
MaxRiskAtr	`2.0`	Rejects the breakout if entry→stop risk exceeds this many ATR (no chasing). Range 1.0–5.0, step 0.5.
RewardRisk	`2.0`	Take-profit as a reward:risk multiple of the stop distance. Range 1.0–4.0, step 0.25.
TrailAtrMult	`2.5`	Chandelier trail distance once the trade is protected, in ATR multiples. Range 1.0–5.0, step 0.25.
Lots	`0.10`	Fixed lot size per trade. Range 0.01–1.0, step 0.05.
Magic	`8123`	Magic number identifying this EA's positions. One position per Magic is held at a time.

Recommended Settings

The defaults are a balanced starting point for liquid FX pairs and index CFDs on intraday timeframes. Suggested contexts:

- **Symbols:** EURUSD, GBPUSD, or US500 — instruments that produce clean, sustained trends.
- **Timeframe:** M15 to H1. Lower timeframes generate more signals but more noise; higher timeframes give fewer, larger breaks.
- **Trend selectivity:** raise `TrendEmaPeriod` and `MinBodyFrac` to trade only the strongest, most decisive breaks; lower them for more frequent signals.

- **Risk shaping:** keep `MaxRiskAtr` near its default to hold per-trade loss uniform, and adjust `RewardRisk` to match how far the instrument typically runs after a break.

> **Tip:** Always validate any parameter set in the MT5 Strategy Tester over a representative history and on a demo account before committing real capital. Optimise on one period and confirm on a separate out-of-sample period to avoid curve-fitting.

How to Install on MetaTrader 5

1. Copy `BodyChannelBreakout.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.