

Keltner Channel Pullback

Expert Advisor Documentation

PLATFORM

MetaTrader 5 (MT5)

TYPE

Mean Reversion (Trend-Filtered)

TIMEFRAME

H1 (recommended)

WEBSITE

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

Keltner Channel Pullback is a trend-aligned mean-reversion Expert Advisor built around a Keltner-style volatility channel. Rather than chasing breakouts, it waits for price to briefly overshoot the *far* band and then reject back inside the channel — a discounted entry in the direction of the prevailing trend. In an established uptrend, a dip that pierces the lower band and closes back above it is treated as a pullback buying opportunity; the mirror image applies for shorts.

The channel is centred on a fast **EMA** basis with bands set a multiple of **ATR** away, while a slower **EMA** acts purely as a directional gate: it must be sloping the right way for a signal to qualify. Aligning every fade with the trend slope filters out the bulk of the false mean-reversion signals that plague plain band-fade systems. Each position carries an ATR-based stop, a fixed reward-to-risk target, and an automatic move to breakeven once the trade is 1R in profit.

How It Works

Indicators & Channel Construction

All calculations run on a single, primary timeframe. Three indicators define the setup:

- **Basis** — $\text{EMA}(\text{BasisEmaPeriod})$ of close, the centre line of the channel.
- **Bands** — $\text{Basis} \pm \text{BandMultiplier} \times \text{ATR}(\text{AtrPeriod})$. The upper and lower band expand and contract with volatility.
- **Trend gate** — $\text{EMA}(\text{TrendEmaPeriod})$, used only for direction. Its *slope* (this bar's value minus the previous bar's) must agree with the trade side.

The core idea: This EA does *not* trade breakouts. It fades an overshoot of the far band *against* the pullback but *with* the trend. The trend-slope gate is what separates a healthy pullback in a live trend from a full reversal — only fades that agree with the slope are allowed.

Entry Logic

The EA evaluates only fully completed bars, acting once per new bar. It never stacks positions — while a trade is open it switches to management mode only.

LONG SETUP

- **Uptrend confirmed:** close is above the trend EMA *and* the trend EMA slope is positive.
- **Rejection of the lower band:** the bar's low pierced at or below the lower band ($\text{Low} \leq \text{Lower}$) but the bar closed back inside it ($\text{Close} > \text{Lower}$).
- **Action:** a buy is submitted at the current **Ask**.

SHORT SETUP

- **Downtrend confirmed:** close is below the trend EMA *and* the trend EMA slope is negative.
- **Rejection of the upper band:** the bar's high pierced at or above the upper band ($\text{High} \geq \text{Upper}$) but the bar closed back inside it ($\text{Close} < \text{Upper}$).
- **Action:** a sell is submitted at the current **Bid**.

Exit Logic — Stop, Target & Breakeven

Every trade is fully bracketed the moment it opens:

- **Stop loss:** placed $\text{AtrSlMultiplier} \times \text{ATR}$ away from entry (below for longs, above for shorts). Using ATR keeps the stop proportional to current volatility.
- **Take profit:** set at $\text{RewardRisk} \times \text{stopDistance}$ from entry, giving a fixed reward-to-risk ratio.
- **Auto-breakeven:** once price travels a full 1R (one stop-distance) in favour of the position, the stop is moved to the entry price — locking in a risk-free trade for the remainder.

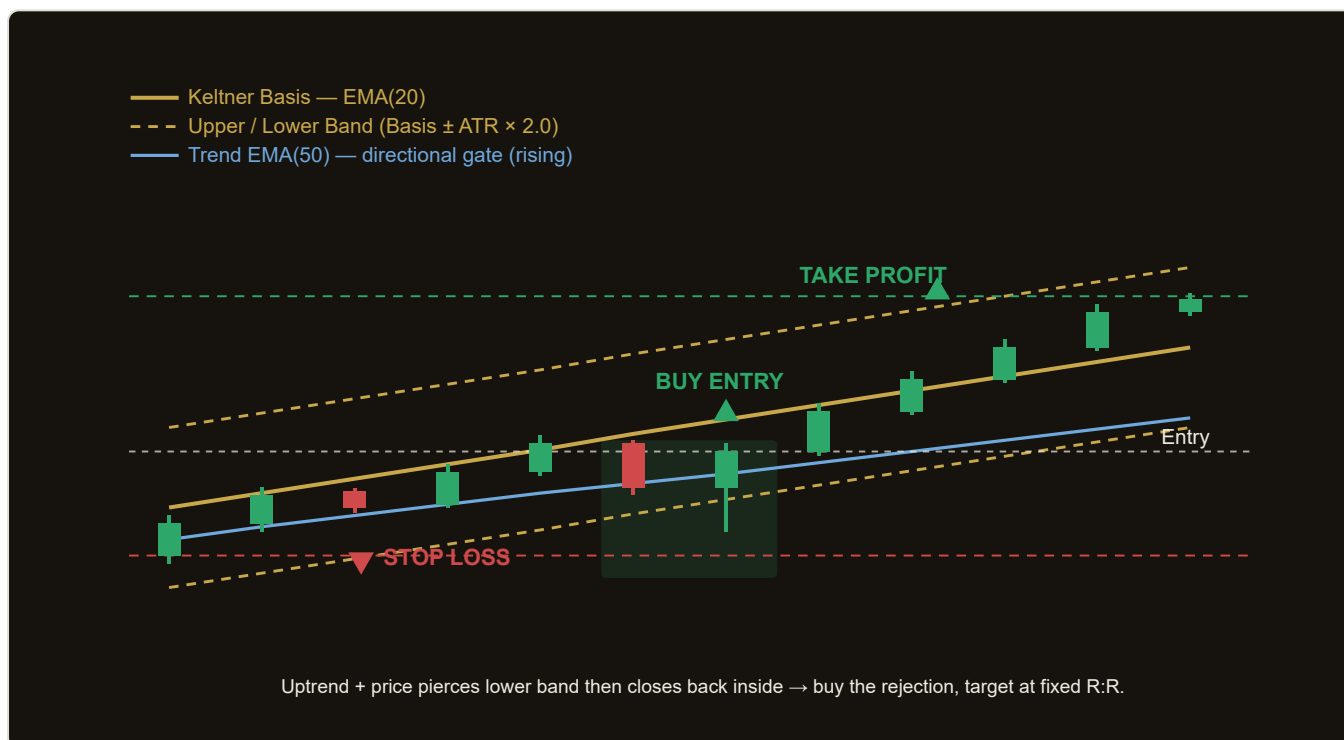
Worked example — long pullback

Suppose $ATR = 20$ pips, $AtrSlMultiplier = 1.5$ and $RewardRisk = 1.5$. A long entry at 1.10000 gets a stop 30 pips away at 1.09700 and a target 45 pips away at 1.10450. If price later reaches 1.10300 (1R = 30 pips of profit), the stop is automatically pulled up to 1.10000, so the worst-case outcome from that point is a scratch trade.

One position at a time. The EA tags its orders with a **Magic** number and manages only its own trades. If a position is already open it will not add another — it simply watches for the breakeven condition.

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
BasisEmaPeriod	20	Period of the EMA that forms the channel basis (centre line). Range 8–60, step 2.
AtrPeriod	14	ATR lookback used to size the channel width and the stop distance. Range 7–30, step 1.
BandMultiplier	2.0	Channel half-width as a multiple of ATR. Larger values widen the bands, producing fewer but deeper pullback signals. Range 1.0–3.5, step 0.1.
TrendEmaPeriod	50	Period of the slower EMA used purely as a directional gate; its slope must agree with the trade direction. Range 20–150, step 5.
AtrSlMultiplier	1.5	Stop-loss distance from entry as a multiple of ATR. Range 0.8–3.0, step 0.1.
RewardRisk	1.5	Take-profit distance as a multiple of the stop distance (reward-to-risk ratio). Range 0.8–3.0, step 0.1.
Lots	0.10	Fixed trade volume in lots. Range 0.01–1.0, step 0.05.
Magic	42010	Unique identifier tagging this EA's orders so it manages only its own positions. Give each chart instance a distinct value.

Recommended Settings

The defaults are a balanced starting point for liquid FX majors on the **H1** timeframe, where the EMA(20)/EMA(50) structure and ATR(14) reflect meaningful intraday swings without over-trading. The strategy also adapts to **M30** through **H4**.

- **Symbols:** trending, liquid instruments — e.g. EURUSD, GBPUSD, USDJPY, XAUUSD. Avoid persistently range-bound pairs where the trend gate rarely engages.
- **Timeframe:** H1 recommended. Lower timeframes increase signal count but also noise and spread sensitivity.
- **BandMultiplier:** keep near 2.0. Lower it (toward 1.5) for more frequent, shallower pullbacks; raise it (toward 2.5–3.0) to demand deeper overshoots and higher-quality rejections.
- **RewardRisk:** 1.5 balances hit-rate and payoff. Raising it lets winners run further but lowers the win rate — validate any change in the Strategy Tester first.
- **Lots:** size so that $\text{AtrSlMultiplier} \times \text{ATR}$ risks no more than 1–2% of account equity per trade.

Tip: Because both the stop and the channel width are ATR-driven, this EA self-adjusts to changing volatility. Re-run the Strategy Tester whenever you move to a new symbol or timeframe so the fixed `Lots` stays aligned with your risk budget.

How to Install on MetaTrader 5

- 1 Copy `KeltnerChannelPullback.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.