

Close Location Pressure Trend

Expert Advisor Documentation

PLATFORM

MetaTrader 5 (MT5)

TYPE

Trend Following

TIMEFRAME

H1 (configurable)

WEBSITE

www.algobot.live

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Overview

Close Location Pressure Trend is a trend-following Expert Advisor that reads the hidden footprint every completed bar leaves behind: *where inside its own range price actually settled*. That location is captured by the **Close Location Value (CLV)**, a signed, scale-free number between -1 and +1:

$$CLV = ((Close - Low) - (High - Close)) / (High - Low)$$

A close pinned at the very top of the range yields $CLV \rightarrow +1$ (buyers absorbed every dip — accumulation), a close at the very bottom yields $CLV \rightarrow -1$ (sellers in control — distribution), and a mid-range close reads near 0 (indecision). Unlike Balance-of-Power, which depends on the open, or Internal Bar Strength, a 0...1 reversion gauge, CLV is a **signed** measure of where the market *accepted value* inside each bar.

Crucially, CLV uses **no volume at all**. On FX, where only unreliable tick-volume is available, this keeps the reading clean. Smoothing CLV with a short EMA produces a **pressure line**: a run of top-of-range closes drives it positive, a run of bottom closes drives it negative. When that pressure *freshly surges through a threshold* in the same direction as the prevailing trend, one side has just taken decisive intrabar control — and the EA enters with the trend.

In one sentence: The EA averages each bar's close-location into a volume-free pressure oscillator, and takes a trade the moment that pressure decisively crosses a threshold in the same direction as a confirmed EMA baseline trend.

How It Works

1. The Pressure Line

On every newly completed bar the EA computes that bar's CLV and appends it to a rolling buffer (capped at 600 bars). An exponential moving average of the last `PressurePeriod` CLV values forms the **pressure line**. Because it is an EMA of a bounded $[-1, +1]$ input, the pressure line itself lives in the same band: positive pressure means persistent top-of-range closing, negative pressure means persistent bottom-of-range closing.

2. The Trend Baseline Filter

The EA never trades against the dominant drift. A second EMA — an EMA of price over `BaselinePeriod` bars — acts as the trend baseline. Two conditions must both hold before any long is allowed, and their mirror image before any short:

- **Direction:** the baseline must be sloping the right way, measured as its value now versus `SlopeLookback` bars ago.
- **Side:** price must be on the correct side of the baseline (above it for longs, below it for shorts).

```
upTrend    = baseNow > baseAgo  && close > baseNow
downTrend  = baseNow < baseAgo  && close < baseNow
```

3. Entry Logic — a Fresh Threshold Cross

An entry requires the pressure line to **freshly cross** the threshold band this bar — not merely to sit beyond it. The EA compares pressure now against pressure one bar ago:

- **Long:** pressure crosses *up* through `+Threshold` (was at or below it last bar, above it now) *while* `upTrend` is true.
- **Short:** pressure crosses *down* through `-Threshold` (was at or above it last bar, below it now) *while* `downTrend` is true.

```
bullCross = pressurePrev <= Threshold && pressureNow > Threshold
bearCross = pressurePrev >= -Threshold && pressureNow < -Threshold
```

Why a cross, not a level? Requiring the moment control *shifts* into the trend — rather than the fact it is already there — captures the decisive handover and avoids late entries into moves that have already exhausted themselves.

4. Exit Logic — ATR Stop and Reward:Risk Target

Every trade is bracketed at entry and left to run. The protective stop is placed at $\text{AtrMult} \times \text{ATR}$ from the fill price, and the take-profit at RewardRisk multiples of that same stop distance. There is no trailing logic and no discretionary exit — the SL/TP pair fully manages the position.

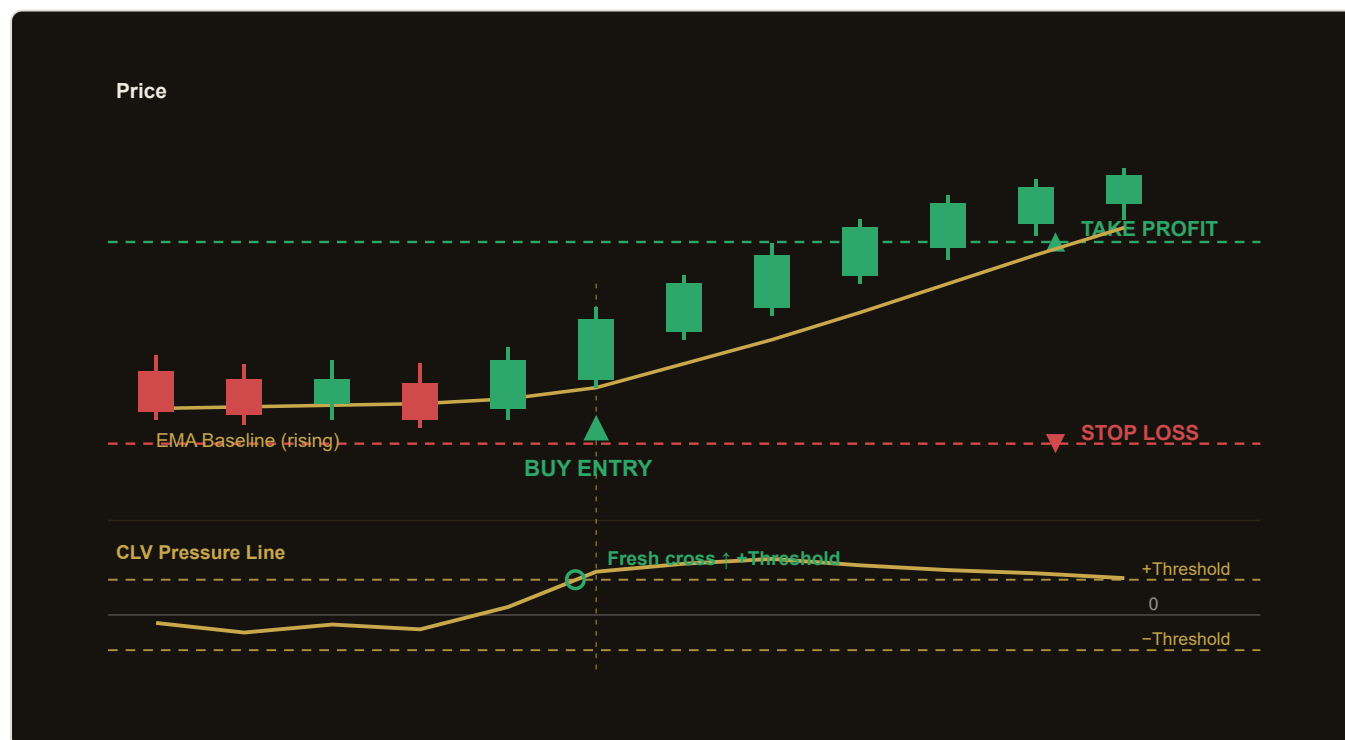
- **Long:** $\text{SL} = \text{entry} - (\text{AtrMult} \times \text{ATR})$; $\text{TP} = \text{entry} + \text{RewardRisk} \times (\text{AtrMult} \times \text{ATR})$.
- **Short:** $\text{SL} = \text{entry} + (\text{AtrMult} \times \text{ATR})$; $\text{TP} = \text{entry} - \text{RewardRisk} \times (\text{AtrMult} \times \text{ATR})$.

5. Position Management

The EA holds **one position per magic number at a time**. While a position is open no new signal is acted on; only after the SL or TP closes it does the EA look for the next fresh cross. All logic evaluates **once per completed bar** (the just-closed bar at shift 1), so signals are stable and never repaint on the forming bar.

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.

In the illustration, the early bars close mid- to lower-range while the pressure line drifts below the **+Threshold** band — no trade. As buyers begin closing bars at the top of their range (rising CLV), the pressure line surges and **freshly crosses up through +Threshold**. At that same bar the EMA baseline is rising and price sits above it, so both trend conditions are met and a **long** is opened. The ATR stop sits below the entry, the reward:risk take-profit above it, and the subsequent up-move carries price to the target.

Parameters

Parameter	Default	Description
PressurePeriod	10	EMA length used to smooth the raw CLV into the pressure line. Shorter reacts faster and fires more often; longer is smoother and more selective. Range 3–30, step 1.
Threshold	0.15	How far from zero the pressure must cross to count as a decisive shift. Higher demands stronger intrabar conviction and produces fewer, cleaner signals. Range 0.00–0.60, step 0.05.
BaselinePeriod	50	EMA length of the trend baseline that supplies both the direction and side filters. Larger favours slower, more established trends. Range 20–150, step 5.
SlopeLookback	3	Number of bars back used to measure the baseline's slope. Larger smooths out noise in the slope reading but reacts more slowly to turns. Range 1–10, step 1.
AtrPeriod	14	Averaging period of the ATR used to size the protective stop. Range 5–30, step 1.
AtrMult	2.0	Stop distance as a multiple of ATR. Larger gives price more room but risks more per trade. Range 1.0–4.0, step 0.5.
RewardRisk	1.8	Take-profit distance as a reward:risk multiple of the stop distance. 1.8 means the target is 1.8× the risk. Range 1.0–4.0, step 0.2.
Lots	0.10	Fixed trade volume in lots. Range 0.01–1.0, step 0.05.
Magic	4721	Magic number identifying this EA's positions. One position per magic is held at a time; use distinct values to run several instances on one account.

Recommended Settings

The defaults are a balanced starting point suitable for liquid FX majors on the H1 timeframe. Because the EA reads only completed-bar ranges via the chart's own timeframe, it runs on whatever timeframe you attach it to — tune the settings to the character of that timeframe.

Balanced (default) — FX majors, H1

PressurePeriod 10 · Threshold 0.15 · BaselinePeriod 50 · SlopeLookback 3 · AtrPeriod 14 · AtrMult 2.0 · RewardRisk 1.8. A good all-round profile that reacts promptly while still requiring a clear trend and a decisive pressure surge.

Selective / trend-rider — higher timeframes (H4)

Raise Threshold toward 0.25–0.35 and BaselinePeriod toward 80–120 to demand stronger, more established trends and only the most decisive pressure crosses. Consider RewardRisk 2.2–2.8 to let winners run further.

Responsive / faster markets — M15

Lower PressurePeriod to 6–8 and Threshold to 0.10 for quicker signals, and keep AtrMult near 1.5–2.0 to hold risk in check. Expect more trades and more noise.

Tip: Always validate a settings profile with the MT5 Strategy Tester on your specific broker's data and spread before considering live use. Threshold and BaselinePeriod are the two highest-impact dials — optimise those first.

How to Install on MetaTrader 5

- 1 Copy `CloseLocationPressureTrend.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

Note: The EA evaluates its logic once per completed bar, so it is comfortable running around the clock. Ensure your chart is on the intended timeframe before attaching — the EA derives every calculation from that chart's period.

Risk Warning

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