



WaveSniper

User Manual & Parameter Reference

Version 1.0 · MetaTrader 5 · AlgoAlex81

This document is intended for users of WaveSniper on MetaTrader 5. It covers the philosophy behind the indicator, a complete description of every input parameter, and recommended settings for different trading styles.

INTRODUCTION

From hundreds of indicators to two rules

I spent years building indicators. I converted entire libraries from Pine Script, optimized parameters for weeks, stacked filter upon filter. The result was always the same: an unreadable chart, contradictory signals, and the persistent feeling that I still didn't understand what the market was actually doing.

At some point I stopped adding and started removing. After all that work, I was left with two simple rules that turned out to be the only ones that mattered.

The market does one thing: it goes up or it goes down. My only job is to know which way — and then buy low or sell high in the right context.

Rule 1 — The directional filter. An adaptive baseline that tells me whether I am in a long or short regime. I never trade against it. This is the only trend gate in the indicator — no entry is allowed against the direction of the baseline, without exception.

Rule 2 — The timing system. A multivariable Signal Engine that reads six independent dimensions of the market simultaneously — order flow, pivot structure, momentum, volatility, excess detection, and volume. It identifies the moment when price is compressed, stressed, or extended relative to fair value. That moment is the entry.

WaveSniper is the final form of that process. Every arrow on the chart has a clear, traceable logic behind it. This manual explains that logic and shows you how to configure the indicator for your specific trading style.

ARCHITECTURE

How the indicator is structured

Component	Role
Adaptive Baseline	Determines the current directional regime (long / short / neutral). The sole trend gate — no signal is generated against it.
Slope Detection	Measures the rate of change of the baseline to confirm direction. Filters out flat, directionless baseline segments.
Signal Engine	Evaluates six independent market conditions and produces a composite score. A signal is generated only when the score meets the minimum threshold.
Glow Renderer	Draws three overlapping baseline layers (outer, mid, core) with decreasing width and increasing brightness, creating the visual glow effect.

Alert System	Dispatches entry and exit notifications to popup, sound, push, or email — only on the live closing bar.
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PARAMETER REFERENCE

Input parameters — complete reference

Every parameter is listed below with a description of what it controls and recommended values for two primary trading styles. Scalping refers to M1–M5 timeframes with fast execution; Day Trading refers to M15–H1 with wider targets and more selective entries.

Parameter	Scalping M1–M5	Day trading M15–H1
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Visual

Glow Color Theme	any	any
<p>Selects the color palette applied to the entire indicator — the three baseline glow layers and all signal arrows. Five themes are available: Neon Magenta, Tech/Sniper, High Contrast, Gold, and Solar Orange. All colors adapt automatically to the selected theme.</p> <p><i>—Neon Magenta and High Contrast offer the highest contrast on dark chart backgrounds, which is useful on fast timeframes</i></p>		

Show Arrows	true	true
<p>Enables or disables all signal arrows (entry and exit). When set to false, WaveSniper displays only the glow baseline and trend direction. This is useful when you want to use the indicator purely as a directional bias filter alongside a separate execution tool.</p>		

Baseline

Baseline Type	Adaptive	Mkt Structure / Kernel
<p>Selects the algorithm used to calculate the directional baseline. This is the single most impactful setting in the indicator — it determines when trend flips are recognized and therefore which entries are permitted. Four options are available: Adaptive (highest reactivity), Smooth Trend (lowest noise), Market Structure (structure-driven, updates on breakouts), and Kernel Regression (statistical weighted fit, spike-resistant).</p> <p><i>→ For scalping, Adaptive reacts fastest and is the natural choice. For day trading, Market Structure or Kernel Regression provide cleaner, less noisy reads on wider candles.</i></p>		

Period	20–35	40–70
<p>Controls how many bars the baseline algorithm uses to determine its current value. Lower values make the baseline more reactive and cause faster direction changes. Higher values produce a smoother, slower filter with fewer but more reliable flips. There is no universally correct period — it depends on your timeframe and noise tolerance.</p> <p>→ A useful calibration approach: set the period so the baseline aligns roughly with the last 3–5 significant swing highs or lows visible on your chart.</p>		

Applied Price	Close	Close / Typical
<p>Determines which price value each bar contributes to the baseline calculation. Close is the most responsive choice. Typical price (high+low+close / 3) and Weighted (high+low+2x close / 4) reduce wick influence and tend to smooth the baseline slightly.</p> <p>→ Switch to Typical or Weighted if the baseline flips too frequently on wick-heavy instruments such as crypto pairs or high-volatility indices.</p>		

Trend detection

Slope Period	2–4	3–6
<p>Controls how many bars back the slope of the baseline is measured to determine whether the trend is up, down, or flat. A small value causes direction changes quickly as the baseline bends. A larger value requires the baseline to sustain movement for longer before confirming the trend, reducing false flips at the cost of slower reaction.</p> <p>→ Keep this small on fast timeframes — increasing it too much on M1–M5 delays trend detection to the point where entries arrive after the move. On H1 and above, a higher slope period can effectively filter short-lived reversals.</p>		

Signal Engine

Lookback (N)	12–20	20–40
<p>The primary observation window for the Signal Engine. Controls the horizon used by the Order Flow Imbalance calculation, the kernel regression reference, excess detection, and velocity measurements. A shorter lookback makes the engine more reactive; a longer one provides a broader statistical reference but responds more slowly to rapid changes.</p> <p>→ This is the most important Signal Engine parameter. Start here before adjusting anything else. As a rule of thumb, N should cover roughly 1–2 complete price cycles on your chart.</p>		

Smoothing	3–5	4–7
<p>Controls the EMA smoothing applied to velocity and OFI calculations inside the Signal Engine. Lower values make these components more responsive to recent price action; higher values dampen short-term noise and produce steadier internal readings.</p> <p>→ If signals disappear within 1–2 bars, increase Smoothing by 1–2 steps. If signals are consistently late, reduce it.</p>		

Excess Threshold (x ATR)**1.2–1.8****1.5–2.5**

Defines how far price must have moved from its statistical reference to qualify as 'extended.' Measured in ATR multiples. When price is extended on the side opposite to the trend, the Signal Engine treats the extension as a potential mean-reversion opportunity. Lower values trigger excess conditions more frequently; higher values require more extreme price displacements.

→ *Scalping: a lower threshold catches micro-extensions but adds noise. Day trading: raise the threshold to focus on genuine overextensions worth fading.*

Excess Lookback**30–50****50–80**

How many bars back the engine scans to establish the historical range of the price-to-kernel distance. This context window determines whether a current excess reading is extreme relative to recent history. A shorter window makes comparisons more local; a longer window requires a more significant deviation to qualify as an excess condition.

Volume SMA Lookback**15–25****25–40**

The number of bars used to calculate the average volume baseline. The Signal Engine compares the most recent 3-bar volume average against this baseline to classify current volume as normal, weak, or strong. Strong volume adds a confirmation point to the signal score.

→ *Keep this proportional to Lookback (N). A ratio of roughly 1:1.5 works well — if N is 20, a volume lookback of 25–30 is appropriate.*

Score Conditions (1–6)**3–4****4–5**

The minimum number of Signal Engine conditions that must be simultaneously satisfied for a signal to be generated. The engine evaluates 7 independent conditions: excess detection, OFI crossover and alignment, pivot structure (HH/LL, LH/HL), momentum alignment, Hawkes cascade, price trigger on the kernel, and volume confirmation. Setting this to 3 generates more frequent signals; setting it to 6 produces very selective, high-conviction entries only. Values above 6 are possible but don't have any effects.

→ *This is your precision dial. Raise it when markets are choppy. Lower it during strong trending phases.*

ALERTS

Alert system

WaveSniper includes a fully configurable alert system with two independent triggers and four delivery channels. Alerts are fired exclusively on the live closing bar — historical recalculation never generates notifications, regardless of settings.

Alert on Entry Signal	true	true
Fires when a Long Entry or Short Entry arrow is written on the current bar as it closes. This is the primary alert and is enabled by default.		
Alert on Close Signal	false	true
Fires when a Close Long or Close Short arrow is written. Disabled by default for scalping because exit timing on very fast timeframes is typically managed manually.		
Popup / Sound / Push / Email	Popup	Popup + Push
Independent switches for each delivery channel. Popup opens a dialog inside MetaTrader. Sound plays alert.wav through the terminal. Push sends a notification to the MetaTrader 5 mobile application. Email sends a message to the address configured in your terminal notification settings. → For VPS or unattended operation, enable Push or Email. Do not enable Sound on a VPS — the server has no audio output.		

QUICK REFERENCE

Recommended settings at a glance

Parameter	Scalping M1–M5	Day trading M15–H1
Baseline Type	Adaptive	Market Structure
Period	20–35	40–70
Applied Price	Close	Close / Typical
Slope Period	2–4	3–6
Lookback (N)	12–20	20–40
Smoothing	3–5	4–7
Excess Threshold	1.2–1.8	1.5–2.5

Excess Lookback	30–50	50–80
Volume Lookback	15–25	25–40
Score Conditions	3–4	4–5
Alert Entry	On	On
Alert Close	Off	On

WaveSniper is a market analysis tool, not a signal service. All settings in this manual are starting points, not guaranteed optima. Markets change — always validate your configuration on recent data before trading live. Trading financial instruments involves substantial risk of loss. Past performance does not guarantee future results.