KARAT KILLER

Version 2.0

*AI-Powered Gold Trading System
for MetaTrader 5*

USER MANUAL

Complete Guide to Installation, Configuration & Best Practices

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1. INTRODUCTION

Karat Killer is a professional-grade Expert Advisor that combines advanced machine learning with institutional-grade risk management to identify high-probability trading opportunities in the Gold market (XAUUSD).

Unlike traditional indicator-based systems, Karat Killer uses a proprietary ensemble of three AI models that analyze multiple market dimensions simultaneously. The system has been trained on years of historical data using walk-forward validation to ensure robustness and prevent over-optimization.

Key Features

- **Triple AI Engine**: Three independent machine learning models working in consensus
- **Adaptive Confidence Scoring**: Position sizing based on prediction confidence
- **Multi-Phase Signal Detection**: Four distinct signal types ($\alpha+$, $\alpha-$, $\beta+$, $\beta-$)
- **Professional Risk Management**: Percentage-based position sizing with multiple safety layers
- **Circuit Breaker Protection**: Automatic risk reduction during adverse conditions
- **Rolling Performance Monitor**: Dynamic adjustment based on recent results
- **Intelligent Trailing Stop**: Protect profits while letting winners run
- **Modern Visual Dashboard**: Real-time AI prediction display and account monitoring
- **Flexible Signal Timing**: Standard or Extended execution modes

2. TRADING PHILOSOPHY: AI-DRIVEN DECISION MAKING

> *"The future of trading lies not in finding perfect indicators, but in building systems that learn and adapt."*

The Problem with Traditional Systems

Most Expert Advisors rely on fixed rules and static indicators. While these can work in specific market conditions, they often fail when markets evolve. Over-optimized systems show impressive backtests but crumble in live trading.

The Karat Killer Approach

- **Machine Learning Core**: AI models that identify patterns invisible to traditional indicators
- **Ensemble Consensus**: Three models must agree before taking action, reducing false signals
- **Confidence-Based Sizing**: Higher confidence = larger position, lower confidence = smaller position
- **Continuous Validation**: Walk-forward tested to ensure out-of-sample performance
- **Conservative Defaults**: Designed for sustainable, consistent returns

3. SYSTEM OVERVIEW

Karat Killer operates on the H1 timeframe and analyzes market conditions across multiple dimensions to generate trading signals.

Signal Types

The system identifies four types of trading opportunities, classified by "Phase":

Phase	Description	Character
α+	Primary Bullish	High-conviction long signals
α-	Primary Bearish	High-conviction short signals
β+	Secondary Bullish	Complementary long signals
β-	Secondary Bearish	Complementary short signals

Each phase can be independently enabled or disabled based on your preferences.

AI Prediction Process

1. Market conditions are analyzed across multiple timeframes
2. Features are extracted and normalized
3. Three AI models generate independent predictions
4. Predictions are averaged to form consensus probability
5. If consensus exceeds threshold, signal is generated
6. Position size is calculated based on confidence level

Common Elements

• Entry via market orders (instant execution)
• Dynamic Stop Loss based on market structure
• Time-based exit system (configurable)
• Automatic trailing to breakeven
• Percentage-based risk management

4. INSTALLATION GUIDE

Requirements

- MetaTrader 5 (Build 3000 or higher recommended)
- Minimum account balance: $500 (recommended: $1,000+)
- Broker with low spreads on XAUUSD (under 30 points recommended)
- VPS recommended for 24/5 operation

Installation Steps

1. Purchase and download Karat Killer from the MQL5 Market
2. Restart MetaTrader 5 or refresh Navigator panel
3. Open **XAUUSD H1** chart (this is mandatory)
4. Drag Karat Killer onto the chart
5. In the "Common" tab, check "Allow Algo Trading"
6. Configure parameters in the "Inputs" tab
7. Click OK to attach the EA
8. Enable AutoTrading in MT5 toolbar

Verification

Once properly installed, you should see:

- Main panel showing "RUNNING" with green status
- AI panel displaying model probabilities
- No error messages in the Experts tab

If you see warnings about ONNX opset, these are informational only and do not affect functionality.

5. PARAMETER REFERENCE

5.1 Risk Management

Parameter	Values	Default	Description
Risk Level	Micro to Maximum	Balanced	Pre-configured risk profiles
Max Risk %	0.1 - 20.0	1.0	Custom risk % (only if CUSTOM selected)
Maximum Spread	1 - 100	35	Max allowed spread in points
Maximum Slippage	1 - 100	30	Max allowed slippage in points
Max Positions	1 - 5	3	Maximum concurrent positions

Risk Level Profiles

Level	Risk %	Recommended For
Micro	0.5%	Very conservative traders
Conservative	1.0%	Risk-averse accounts
Moderate	1.5%	Balanced approach
Standard	2.0%	Standard trading
Balanced	2.5%	Default setting
Growth	3.0%	Growth-focused accounts
Dynamic	4.0%	Experienced traders
Aggressive	5.0%	High-risk tolerance
High Risk	7.0%	Very aggressive
Speculative	10.0%	Speculative only
Maximum	15.0%	Expert traders only
Custom	Variable	Full control

Recommendation: Start with Conservative (1%) or Moderate (1.5%) and adjust based on your risk tolerance and account size.

5.2 AI Configuration

Parameter	Values	Default	Description
ML Threshold	0 or 0.3-0.9	0 (AUTO)	Minimum confidence for signals

Understanding ML Threshold

The threshold determines the minimum AI confidence required to generate a trading signal.

- **0 (AUTO)**: Uses the internally optimized threshold (recommended)
- **0.3 - 0.5**: More signals, lower average quality
- **0.5 - 0.6**: Balanced signal frequency and quality
- **0.6 - 0.9**: Fewer signals, higher average quality

Recommendation: Leave at 0 (AUTO) unless you have specific reasons to override.

5.3 Signal Timing

NEW IN v2.0

Parameter	Values	Default	Description
Execution Mode	Standard / Extended	Extended	Signal timing behavior
Signal Window	0 - 24	0	Hours to consider signal (0 = session)
Primary Only	true/false	false	Limit Extended mode to primary signals
Confirmation Boost	0.0 - 0.3	0	Extra threshold for extended timing

Execution Modes Explained

Standard Mode

- Signals are evaluated at a single point in time
- More selective entry timing
- Traditional approach

Extended Mode

- Signals can be captured within a flexible timing window
- Adapts to varying market conditions
- May capture opportunities missed by Standard mode

Signal Window

When using Extended mode, this limits how long a signal remains valid:

- **0**: Signal valid for the entire session
- **1-6**: Signal valid for specified hours
- **Higher values**: Longer validity window

Primary Only

When enabled, Extended mode only applies to primary signals (α+ and α-). Secondary signals (β+ and β-) use Standard timing.

Confirmation Boost

Adds extra threshold requirement for extended timing entries:

- **0.00**: No additional requirement
- **0.05**: Requires +5% higher confidence
- **0.10**: Requires +10% higher confidence

Example: If base threshold is 57.5% and Confirmation Boost is 0.05, extended entries require 62.5% confidence.

5.4 Trade Settings

Parameter	Values	Default	Description
Magic Number	Any integer	202501	Unique identifier for EA trades
Trade Comment	Text	"Karat Killer"	Comment attached to trades
Time-Based Exit	1 - 48	8	Hours before automatic exit
Stop Multiplier	0.5 - 3.0	1.5	Stop loss distance factor
Min Risk Distance	0.0001 - 0.01	0.001	Minimum risk as % of price

Magic Number

Use unique Magic Numbers when running multiple EAs on the same account. This ensures each EA only manages its own positions.

Time-Based Exit

Positions are automatically closed after the specified number of H1 bars if neither Stop Loss nor trailing stop has been triggered. This prevents positions from staying open indefinitely.

5.5 Signal Filters

Parameter	Values	Default	Description
Phase α+ Signals	true/false	true	Enable primary bullish signals
Phase α- Signals	true/false	true	Enable primary bearish signals
Phase β+ Signals	true/false	true	Enable secondary bullish signals
Phase β- Signals	true/false	true	Enable secondary bearish signals

Customizing Signal Selection

You can disable specific phases based on your analysis or preferences:

- **Long-only**: Enable α+ and β+, disable α- and β-
- **Short-only**: Enable α- and β-, disable α+ and β+
- **Primary only**: Enable α+ and α-, disable β+ and β-
- **All signals**: Enable all (default)

5.6 Protection Systems

Karat Killer includes multiple layers of protection that operate automatically.

Circuit Breaker

Reduces position size when account drawdown exceeds threshold. This prevents catastrophic losses during adverse market conditions.

- **Activation**: When drawdown exceeds configured threshold
- **Effect**: Position size reduced by configured factor
- **Recovery**: Normal sizing resumes when drawdown recovers

Hour Filter

Reduces position size during historically unfavorable trading hours. Certain periods show statistically lower performance.

- **Activation**: During filtered hours
- **Effect**: Position size reduced by configured factor

Rolling Performance Monitor

Adjusts position sizing based on recent trade results. During cold streaks, size is reduced; during hot streaks, normal sizing is maintained.

- **Cold Streak**: Below 25% win rate in recent trades → 25% size
- **Cool Period**: Below 35% win rate → 50% size
- **Normal**: Above 35% win rate → Full size

5.7 Trailing Stop

Parameter	Values	Default	Description
Enable Trailing	true/false	true	Enable trailing to breakeven
Trigger Multiplier	1.0 - 5.0	2.0	Profit multiple before trailing

How Trailing Works

1. Trade opens with initial Stop Loss
2. Price moves in favorable direction
3. When profit reaches [Trigger Multiplier × Risk], Stop Loss moves to breakeven
4. Position is now protected at entry price
5. Trade can only result in breakeven or profit

Example: If risk is $50 and Trigger Multiplier is 2.0, trailing activates when profit reaches $100.

5.8 Display Options

Parameter	Values	Default	Description
Show Panel	true/false	true	Display main information panel
Show ML Panel	true/false	true	Display AI prediction panel

Main Panel Information

- Account status and growth
- Current positions and P&L
- Win/loss statistics
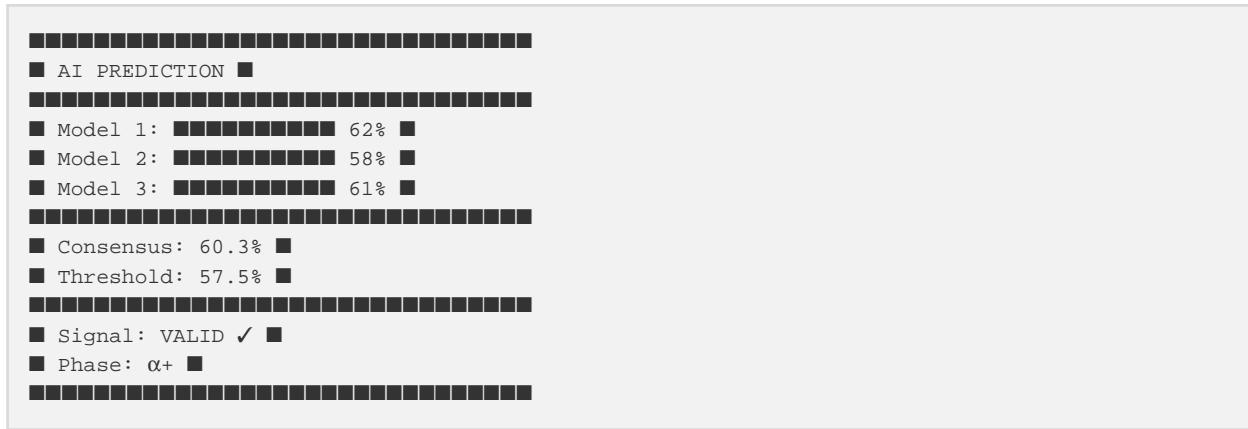- Spread monitoring
- Risk level display

AI Panel Information

- Individual model probabilities
- Ensemble consensus score
- Current threshold
- Signal validity status
- Phase identification

6. UNDERSTANDING THE AI PANEL

The AI Panel provides real-time insight into the system's decision-making process.

Panel Elements

```
■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■
■ AI PREDICTION ■
■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■
■ Model 1: ■■■■■■■■■■■ 62% ■
■ Model 2: ■■■■■■■■■■■ 58% ■
■ Model 3: ■■■■■■■■■■■ 61% ■
■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■
■ Consensus: 60.3% ■
■ Threshold: 57.5% ■
■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■
■ Signal: VALID ✓ ■
■ Phase: α+ ■
■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■
```

Interpreting the Display

- **Model 1/2/3**: Individual AI model confidence levels
- **Consensus**: Average of all three models
- **Threshold**: Minimum required for trade entry
- **Signal**: VALID (above threshold) or WAITING (below)
- **Phase**: Current signal type if valid

Color Coding

- **Green**: Signal valid, conditions favorable
- **Yellow**: Monitoring, approaching threshold
- **Gray**: No current opportunity

7. UNDERSTANDING DRAWDOWN PERIODS

"All trading systems experience periods of drawdown. Understanding this is crucial for long-term success."

What is Drawdown?

Drawdown is the decline from a peak in account equity to a subsequent trough. Every legitimate trading system experiences drawdowns – it's a natural part of trading.

Expected Drawdown Characteristics

- **Typical drawdown**: 5-15% of account
- **Maximum historical**: Up to 20% in extreme conditions
- **Recovery time**: Varies based on market conditions

Why Drawdown Happens

1. **Market regime changes**: AI models adapt, but transitions cause temporary underperformance
2. **Volatility spikes**: Unusual market events can trigger stops
3. **Natural variance**: Even high-probability trades have losing streaks

What to Do During Drawdown

DO:

- Trust the system's risk management
- Maintain consistent settings
- Review that all protections are enabled
- Consider reducing risk level if uncomfortable

DON'T:

- Increase risk to "recover faster"
- Disable the EA entirely
- Override trades manually
- Change settings constantly

8. BEST PRACTICES & RECOMMENDATIONS

Getting Started

1. **Demo First**: Run on demo account for 2-4 weeks
2. **Conservative Start**: Begin with Conservative (1%) risk level
3. **Proper Broker**: Choose broker with tight XAUUSD spreads
4. **VPS Usage**: Use VPS for consistent 24/5 operation
5. **Single Instance**: Run one instance per symbol

Optimal Configuration

For most users, the default settings provide an excellent balance. If customizing:

- **New traders**: Micro or Conservative risk, all defaults
- **Intermediate**: Moderate risk, experiment with Signal Timing
- **Advanced**: Standard or Balanced risk, customize phases

What NOT to Do

- Do NOT increase risk after losses
- Do NOT disable during stagnation periods
- Do NOT run without Stop Loss
- Do NOT use on timeframes other than H1
- Do NOT use on symbols other than XAUUSD
- Do NOT expect immediate profits
- Do NOT interfere with open trades

Monitoring Your EA

Check your EA daily for:

- Panel showing "RUNNING" status
- No error messages in Experts tab
- Spread within acceptable range
- AutoTrading enabled

9. FREQUENTLY ASKED QUESTIONS

Q: Why isn't the EA opening trades?

A: Several reasons are possible:

- No valid signal (AI confidence below threshold)
- Spread too high (wait for lower spread)
- Maximum positions reached
- Phase filters blocking the signal type
- Outside of favorable trading conditions

Q: Can I use this on other symbols?

A: Karat Killer is specifically trained and optimized for XAUUSD. Using on other symbols is not recommended and may result in poor performance.

Q: What timeframe should I use?

A: H1 only. The AI models were trained on H1 data and expect H1 chart attachment.

Q: How many trades per day/week?

A: Trade frequency varies based on market conditions. Expect 0-3 trades per day on average, with some days having no trades.

Q: Can I run multiple instances?

A: You can run on multiple accounts, but use different Magic Numbers. Do not run multiple instances on the same symbol/account.

Q: What's the minimum account size?

A: Minimum $500, recommended $1,000+. Smaller accounts may have position sizing limitations.

Q: Should I close trades manually?

A: No. The EA manages all exits. Manual intervention disrupts the system's logic.

10. RISK DISCLAIMER

IMPORTANT: Please read this section carefully before using Karat Killer.

Trading foreign exchange (Forex), Contracts for Difference (CFDs), commodities, and other financial instruments involves substantial risk of loss and is not suitable for all investors. The high degree of leverage available can work against you as well as for you.

Before deciding to trade, carefully consider your investment objectives, level of experience, and risk appetite. The possibility exists that you could sustain a loss of some or all of your initial investment. Do not invest money you cannot afford to lose.

Past performance is not indicative of future results. Backtesting results, AI model accuracy, and historical performance do not guarantee future profitability. Market conditions change, and what worked in the past may not work in the future.

The developers of Karat Killer make no guarantees regarding performance, profitability, or the accuracy of AI predictions. Machine learning models can and do make incorrect predictions.

By using this software, you acknowledge that:

- You understand the risks of trading
- You are solely responsible for your trading decisions
- You will not hold the developers liable for any losses
- You have read and understood this manual

Thank you for choosing Karat Killer.

Trade responsibly and may your equity curve climb steadily.

Telegram: @blodsalgocom

Website: https://blodsalgo.com/karatkiller/