# AL-JAMAL GOLD MT5 EA

*OFFICIAL COMPREHENSIVE USER MANUAL & INPUT PARAMETERS GLOSSARY*

## 1. SYSTEM OVERVIEW & PHILOSOPHY

**Al-Jamal Gold** is a rule-based algorithmic trading system developed specifically for the **XAUUSD (Gold Spot)** market on the MetaTrader 5 platform. Built upon a foundational philosophy of capital preservation, the system strictly avoids toxic trade-management models such as grid plotting, martingale lot multiplier expansions, or un-hedged cost averaging frameworks.

The core engine utilizes a disciplined multi-timeframe approach designed to isolate long-term market trends while identifying precise entry execution zones. Every market entry is processed as an autonomous atomic entity with definitive, non-negotiable risk parameters defined immediately upon execution.

## 2. TECHNICAL SPECIFICATIONS & CORE LOGIC

- **Trading Instrument:** XAUUSD (Gold Spot)
- **Multi-Timeframe Strategy Architecture:**
  - **Main Trend Direction Filter:** Daily Chart (D1) – Governs the overarching directional structural bias.
  - **Entry Trigger Execution Filter:** 30-Minute Chart (M30) – Governs local entries, execution triggers, and short-term execution synchronization.
- **Account Infrastructure Requirements:** MT5 Hedging account architecture
- **Execution Environment:** Low-latency Virtual Private Server (VPS) recommended. Optimized spread thresholds and reliable execution profiles are required for systematic operations.
- **Standard Trading Time Filter:** General operations and execution sessions are filtered to occur strictly between **04:00 and 18:00 GMT**.

## 3. MATHEMATICAL RISK FRAMEWORK & CAPITAL CALCULATION

Risk configuration within Al-Jamal Gold relies fundamentally on standard volatility-adjusted position sizing metrics. The algorithm measures real-time market volatility via the Average True Range (ATR) technical indicator.

> **Critical Operational Guardrail (Max ATR Filter):**
>
> The software architecture contains a hard-coded maximum volatility constraint set to ***1,150*** points ($11.50 price movement in gold). If the current ATR structural print exceeds this ceiling, the system completely disables trade execution triggers, shielding the capital infrastructure from highly unpredictable and erratic price discovery spikes.

### Mathematical Capital & Lot Size Distribution Models

Because the maximum potential stop loss distance is capped dynamically at ***1,150*** points, your risk management can be mathematically mapped to fixed deposit tiers. Position sizing calculations utilize the following standard quantitative formula:

$$\textit{Lot Size} = (\textit{Account Equity} \times \textit{Risk \%}) / (\textit{Stop Loss Points} \times \textit{Point Value})$$

On standard MetaTrader 5 contract specifications for Gold, ***1 Volume Lot = 100 Ounces***. Therefore, a ***1-point*** price move (0.01 change in price) equals ***$1.00 USD*** per full lot. A maximum stop loss distance of ***1,150 points*** means a risk exposure of ***$1,150 USD*** per full lot traded.

### Recommended Capital Sizing Matrix

| Account Deposit (USD) | Aggressive Strategy (2.0% Max Risk per Trade) | Balanced Strategy (1.0% Max Risk per Trade) | Conservative Strategy (0.5% Max Risk per Trade) |
|---|---|---|---|
| **$1,000** | 0.017 Lots (Use 0.01) | Below Minimum (Not Advised) | Below Minimum (Not Advised) |
| **$2,000** | 0.03 Lots | 0.017 Lots (Use 0.01) | Below Minimum (Not Advised) |
| **$5,000** | 0.08 Lots | 0.04 Lots | 0.02 Lots |
| **$10,000** | 0.17 Lots | 0.08 Lots | 0.04 Lots |
| **$20,000** | 0.34 Lots | 0.17 Lots | 0.08 Lots |

## 4. DETAILED INPUT PARAMETERS GLOSSARY

This section profiles customizable input parameters compiled within Al-Jamal Gold v1.1.6, mapping out exactly how operators should tune parameters for secure execution.

### A. Global Settings

- `MagicNumber` *(int, default: 2552625)*: Unique identification number for the EA's orders. This prevents data cross-contamination and interference with other automated trading systems running concurrently on the same MT5 account.
- `InpAutoStart` *(bool, default: true)*: Activates automated live trade execution immediately upon terminal startup, account synchronization, or chart layout initialization.
- `InpTradeComment` *(string, default: "Al-Jamal Gold")*: Custom metadata string appended to every executed order. Useful for tracking compliance, ledger parsing, or account routing logs.

- **`InpVersionTag`** *(sinput string, default: "v1.1.6-ic-candidate")*: A read-only parameter displaying the current compilation build and structural configuration version for troubleshooting.

### B. Strategy Configuration

- **`AlgoMode`** *(enum)*: Governs the underlying technical filtration engine rules for identifying valid market entries.
  - `MODE_STANDARD_TREND`: Optimizes the algorithm for broader market participation across generalized multi-timeframe structural trends.
  - `MODE_STRONG_TREND`: Activates criteria requiring stricter ADX alignment before triggering entries.

### C. Money Management & Sizing

- **`RiskMode`** *(enum)*: Dictates how the volume calculation engine sizing behaves per trade trigger.
  - `RISK_PERCENT`: Dynamic asset allocation position sizing automatically calculated dynamically from the floating equity pool.
  - `FIXED_LOT`: Completely overrides dynamic metrics to execute static lot allocations defined in the parameter below.
- **`RiskPerTrade_Percent`** *(double, default: 1.0)*: The exact percent fraction of account equity exposed to risk assuming worst-case validation hit (Capped at 1,150 points).
- **`FixedLotSize`** *(double, default: 0.01)*: Static volume allocation used strictly when `RiskMode` is explicitly set to fixed lot sizing.
- **`MaxLotLimit`** *(double, default: 0.5)*: A critical hard mathematical volume ceiling designed to prevent entry sizing errors.
- **`MinLotBehavior`** *(enum)*: Directs system response when computed lot results fall below the broker's minimum contract limitation boundaries (typically 0.01 lots).
  - `SKIP_IF_TOO_SMALL`: Bypasses trade execution triggers to prioritize absolute mathematical risk preservation parameters.
  - `FORCE_MIN_LOT`: Forces execution at the minimum contract size permitted by liquidity providers (0.01 lots).

### D. Safety & Account Protection Guardrails

- **`EnableSafetyMode`** *(bool, default: true)*: Global activation toggle for the built-in advanced account circuit breakers and trailing threshold layers.
- **`MaxDailyLoss_Percent`** *(double, default: 4.8)*: Daily account balance protective limit. If realized or unrealized daily floating losses breach this threshold, trading operations completely freeze.
- **`MaxDrawdown_Percent`** *(double, default: 9.8)*: Emergency equity drawdown cushion benchmark. Triggers complete operation containment sequences if breached.
- **`HardStop_Equity`** *(double, default: 0.0)*: Absolute cash boundary target. If equity breaches this dollar amount, the emergency isolation framework is deployed.

- `CloseAllOnSafety` *(bool, default: true)*: Forces immediate market liquidation of open positions across active asset pairs the moment any daily loss or drawdown protection metric is triggered.
- `MaxSpreadAllowed` *(int, default: 45)*: Maximum allowed spread in platform points ($0.45 USD for XAUUSD) before trade submission sequences are suppressed. Prevents entry during illiquid roll hours or chaotic macro announcements.

### E. Prop Firm Compliance & News Filter

- `InpPropFirmMode` *(bool, default: false)*: Toggles enhanced account evaluation criteria modules to stay within standard evaluation parameters.
- `InpNewsBufferMin` *(int, default: 2)*: Temporarily freezes Stop Loss (SL) and Trailing Stop (TS) adjustments inside a localized time window surrounding news events to avoid execution errors under high volatility.
- `InpEnableNews` *(bool, default: true)*: Globally enables the fundamental economic calendar filter engine to avoid entering trades during major market-altering announcements.
- `InpWaitBefore` *(int, default: 30)*: Interval in minutes to pause trade execution triggers **before** high-impact macroeconomic indicators drop.
- `InpWaitAfter` *(int, default: 60)*: Cool-down interval in minutes to suppress new trade entries **after** high-impact data prints, letting order flow normalize.

### F. Trailing Stop Management

- `Enable_Trail_Trend` *(bool, default: true)*: Activates the trailing engine to automatically secure profits as the asset prices break out into confirmed trend expansions.

### G. Machine Learning & Macro Configuration Layers

- `Enable_AI_Macro_Flash` *(bool, default: false)*: Global toggle for enabling the secondary macroeconomic data-driven filtering overlay.
- `FRED_API_Key` *(string, default: "")*: User-provided authorization string to sync central banking statistics directly from the St. Louis Federal Reserve network.
- `Gemini_API_Key` *(string, default: "")*: Private authentication token for querying Google AI Studio models to assist in macro analysis filtering layers.
- `FRED_Update_Interval` *(int, default: 4)*: Defines the standard execution update window in hours for requesting fresh macroeconomic benchmark indexes.

## 5. WEBREQUEST INTEGRATION SETTINGS

To activate optional quantitative macroeconomic filtering overlays, operators must grant permissions for external data streams inside the MetaTrader terminal system options.

```
MT5 Terminal Navigation Configuration Path:
Tools → Options → Expert Advisors → Check "Allow WebRequest for listed URL"
```

```
Please append the following exact domain destinations:
1. https://api.stlouisfed.org
2. https://generativelanguage.googleapis.com
```

*Disclaimer: Algorithmic trading carries inherent financial exposure. Past stress-tested backtesting results do not constitute definitive guarantees of future live account monetization performance. Practice strict discipline.*