

Twilight Star Reversal

Expert Advisor Documentation

PLATFORM	TYPE	TIMEFRAME	WEBSITE
MetaTrader 5 (MT5)	Candlestick Reversal	H1	www.algotbot.live

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Overview

Twilight Star Reversal is a pure price-action Expert Advisor that trades the classic three-candle **Morning Star** and **Evening Star** reversal patterns. These are arguably the most reliable candlestick reversals because they bake confirmation directly into the pattern itself: an exhaustion body, followed by an indecision "star", followed by a commitment body that pushes price back in the opposite direction.

The EA uses **no indicators of any kind**. Trend and level context is derived entirely from raw swing highs and lows, and the stop-loss is placed on the pattern's own structure rather than on a moving average or oscillator. A trade is only taken when the pattern forms at a genuine swing extreme — a Morning Star that prints the lowest low of the lookback window, or an Evening Star that prints the highest high — which filters out mid-trend noise and focuses the strategy on true counter-exhaustion turning points.

It is designed for **EUR/USD** or **XAU/USD** on the **H1** timeframe, but works on any liquid symbol and timeframe. The trading style is swing reversal / counter-exhaustion, holding one position at a time per magic number.

How It Works

On every newly-closed bar, the EA inspects the three most recently completed candles — labelled **A** (oldest, shift 3), **B** (the star, shift 2) and **C** (most recent close, shift 1) — and checks them against the swing structure of the surrounding window.

The Star Filter

Before any directional check, the middle candle must qualify as a true "star" (indecision). The EA measures the body sizes of all three candles and requires:

$$\text{bodyB} \leq \text{StarBodyRatio} \times ((\text{bodyA} + \text{bodyC}) / 2)$$

In words: candle B's body must be small relative to the average body of the two conviction candles around it. Candles A and C must also have real bodies (non-zero) so the pattern reflects genuine conviction on either side of the pause.

Entry Logic — Morning Star (Long)

A buy is triggered when *all* of the following are true:

- **A is bearish** — close below open (sellers in control).
- **B is a small star** — passes the star-body filter above (selling exhausts, indecision sets in).
- **C is bullish and reclaims A's midpoint** — close above open *and* above the midpoint of A's body (buyers commit).
- **The pattern owns the window's lowest low** — the lowest of the three pattern candles is at or below the lowest low across the whole lookback window, confirming a genuine swing low.

Entry is placed at the current **Ask**.

Entry Logic — Evening Star (Short)

A sell is the exact mirror image, taken at a fresh swing high:

- **A is bullish** — close above open.
- **B is a small star.**
- **C is bearish and breaks A's midpoint** — close below open *and* below the midpoint of A's body.
- **The pattern owns the window's highest high** — confirming a genuine swing high.

Entry is placed at the current **Bid**.

Stop-Loss & Take-Profit

Risk is defined purely by structure. First the EA measures the full pattern range (highest high minus lowest low of the three candles) and derives a buffer:

$$\text{buffer} = \text{BufferFrac} \times (\text{patternHigh} - \text{patternLow})$$

- **Long stop-loss:** just below the pattern low — $\text{patternLow} - \text{buffer}$.
- **Short stop-loss:** just above the pattern high — $\text{patternHigh} + \text{buffer}$.
- **Take-profit:** a fixed risk/reward multiple of that structural stop — $\text{entry} \pm \text{RiskReward} \times \text{risk}$, where risk is the distance from entry to the stop.

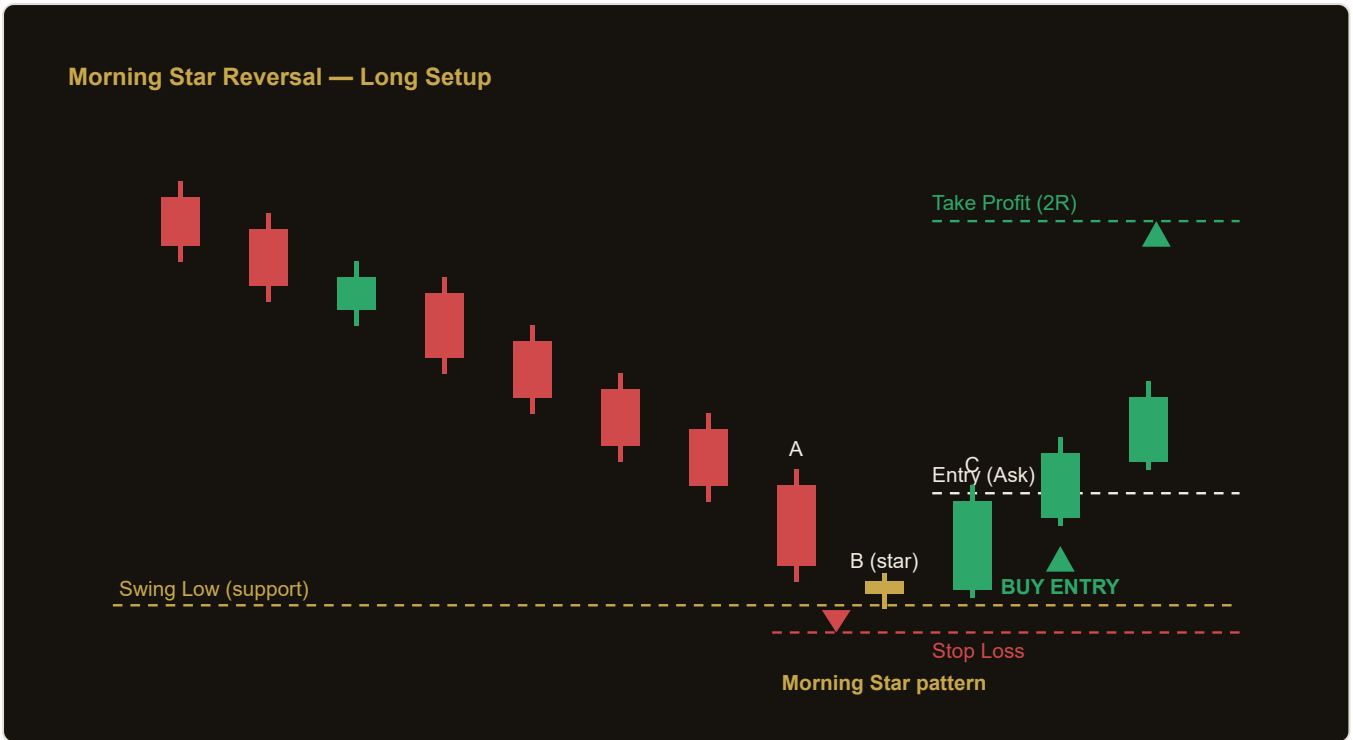
Note: Because the stop sits on the pattern extreme and the target scales from it, every trade carries a consistent, pre-defined risk/reward profile. With the default $\text{RiskReward} = 2.0$, each winning trade aims to return twice what a losing trade risks.

Trade Management

- **One bar, one decision.** Logic runs only on a freshly-closed bar; the still-forming bar (shift 0) is ignored.
- **One position at a time** per symbol and magic number — no stacking or grid behaviour.
- **Set-and-forget exits.** Once a position is opened with its SL and TP attached, the trade runs to one of those two levels.

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
Lots	0.10	Fixed trade volume in lots for every position. Range 0.01–1.00, step 0.01.
SwingLookback	10	Number of bars used to define the swing window. The pattern must print the window's extreme low (long) or high (short) to qualify. Range 3–40, step 1.
RiskReward	2.0	Take-profit distance as a multiple of the structural stop-loss distance. A value of 2.0 targets twice the risked amount. Range 1.0–5.0, step 0.5.
StarBodyRatio	0.50	Maximum size of the middle "star" candle's body relative to the average body of the two surrounding candles. Lower values demand a tighter, more textbook star. Range 0.10–0.90, step 0.05.
BufferFrac	0.10	Stop-loss buffer beyond the pattern extreme, expressed as a fraction of the pattern's total range. 0.00 places the stop exactly on the extreme. Range 0.00–1.00, step 0.05.
Magic	7003	Unique identifier the EA stamps on its orders so it manages only its own positions and never interferes with other EAs or manual trades.

Recommended Settings

The defaults are tuned for liquid majors and gold on the hourly chart. The following pairings are good starting points:

Setting	Suggested	Notes
Symbol	EUR/USD or XAU/USD	Any liquid instrument works; avoid thin, wide-spread symbols.
Timeframe	H1	The pattern logic is timeframe-agnostic but H1 balances signal frequency and reliability.
SwingLookback	10	Raise toward 20–40 to demand deeper, rarer swings; lower for more frequent signals.
RiskReward	2.0	Increase to 2.5–3.0 for trend-friendly conditions; lower to 1.5 in choppy ranges.
StarBodyRatio	0.50	Tighten toward 0.30 for stricter, textbook stars and fewer trades.
BufferFrac	0.10	Widen toward 0.20–0.30 on volatile symbols like gold to avoid premature stop-outs.

Example — Conservative EUR/USD H1

Lots 0.10, SwingLookback 20, RiskReward 2.5, StarBodyRatio 0.35, BufferFrac 0.15. This configuration only acts on deep, clean swing reversals with a tight star and a generous structural buffer — fewer signals, higher selectivity.

Tip: Always validate any parameter change in the MT5 Strategy Tester on your broker's data before going live. Spread and contract specifications differ between brokers and can materially affect a structure-based strategy.

How to Install on MetaTrader 5

- 1 Copy `TwilightStarReversal.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**

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.