

Short Cycle Rsi Reversion

Expert Advisor Documentation

PLATFORM	TYPE	TIMEFRAME	WEBSITE
MetaTrader 5 (MT5)	Trend-Aligned Mean Reversion	M15 – H1	www.algotbot.live

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Overview

Short Cycle Rsi Reversion is a trend-aligned mean-reversion Expert Advisor. Its guiding premise is that a healthy trend does not travel in a straight line — it advances in impulses and then pauses to catch its breath. Those pauses are shallow counter-trend pullbacks, and they are the low-risk spots to join the move.

Rather than fading strength blindly — the classic way naive oscillator systems bleed out — Short Cycle Rsi Reversion **only buys dips inside an established uptrend** and **only sells rallies inside an established downtrend**. The dominant trend supplies the edge; a very short-cycle oscillator merely times the entry. When there is no trend, or when price is at a counter-trend extreme, the EA simply stands aside.

The system rests on three ingredients, each with a distinct job:

- **Trend filter** — a long EMA plus its *slope*. Price above a *rising* EMA marks an uptrend; price below a *falling* EMA marks a downtrend. Requiring the slope (not just price-versus-EMA) rejects the flat, directionless regimes where mean-reversion entries get chopped up.
- **Pullback timer** — a very short-period RSI. A short RSI is deliberately jumpy: it snaps to an oversold extreme on the smallest dip and to overbought on the smallest pop. Inside a trend, those extremes mark the exhaustion of the counter-move — the moment the pullback is most likely to end and the trend to resume.

- **Risk & exit** — ATR-based. The stop sits a volatility multiple away so it scales to any symbol or timeframe, and a generous ATR target is the safety cap. The *primary* profit-taker, however, is an RSI-reversion exit: once the oscillator swings back through a neutral level, the snap-back has played out and the position is banked.

In one line: trend-following at heart, mean-reversion by entry. A robust directional edge (only trading *with* a sloping trend) is coupled to a high-probability timing trigger (short-RSI exhaustion of the pullback), which keeps false signals low by design.

How It Works

The EA acts **once per newly-closed bar** on its chart timeframe. On each new bar it refreshes three indicators — the trend EMA (and the same EMA a few bars back, to read its slope), the short RSI, and the ATR — and then evaluates position management first, followed by entry logic.

Defining the trend

Two conditions must both hold for a directional regime to be recognised:

- **Uptrend:** the last closed price is *above* the EMA **and** the EMA is higher than it was `SlopeLookback` bars ago (a rising EMA).
- **Downtrend:** the last closed price is *below* the EMA **and** the EMA is lower than it was `SlopeLookback` bars ago (a falling EMA).

Entry logic

Entries fire only when the trend is confirmed *and* the short RSI has snapped to a counter-trend extreme — the signature of an exhausting pullback.

- **Long (buy the dip):** in an uptrend, when `RSI ≤ OversoldLevel`, the EA buys at the ask. Stop-loss = entry - `SlAtrMult × ATR`; take-profit = entry + `TpAtrMult × ATR`.
- **Short (sell the rally):** in a downtrend, when `RSI ≥ (100 - OversoldLevel)`, the EA sells at the bid. Stop-loss = entry + `SlAtrMult × ATR`; take-profit = entry - `TpAtrMult × ATR`.

Exit logic

The primary exit is the **RSI-reversion**. Because the trade was taken at an oscillator extreme, the profit target is the swing back to neutral:

- **Close a long** once `RSI ≥ ExitLevel` — the snap-back we came for has played out.
- **Close a short** once `RSI ≤ (100 - ExitLevel)`.

The ATR stop-loss and ATR take-profit act as a hard safety net around this behaviour: the stop caps the loss if the pullback turns into a genuine reversal, and the ATR target caps the win if price runs before RSI reverts.

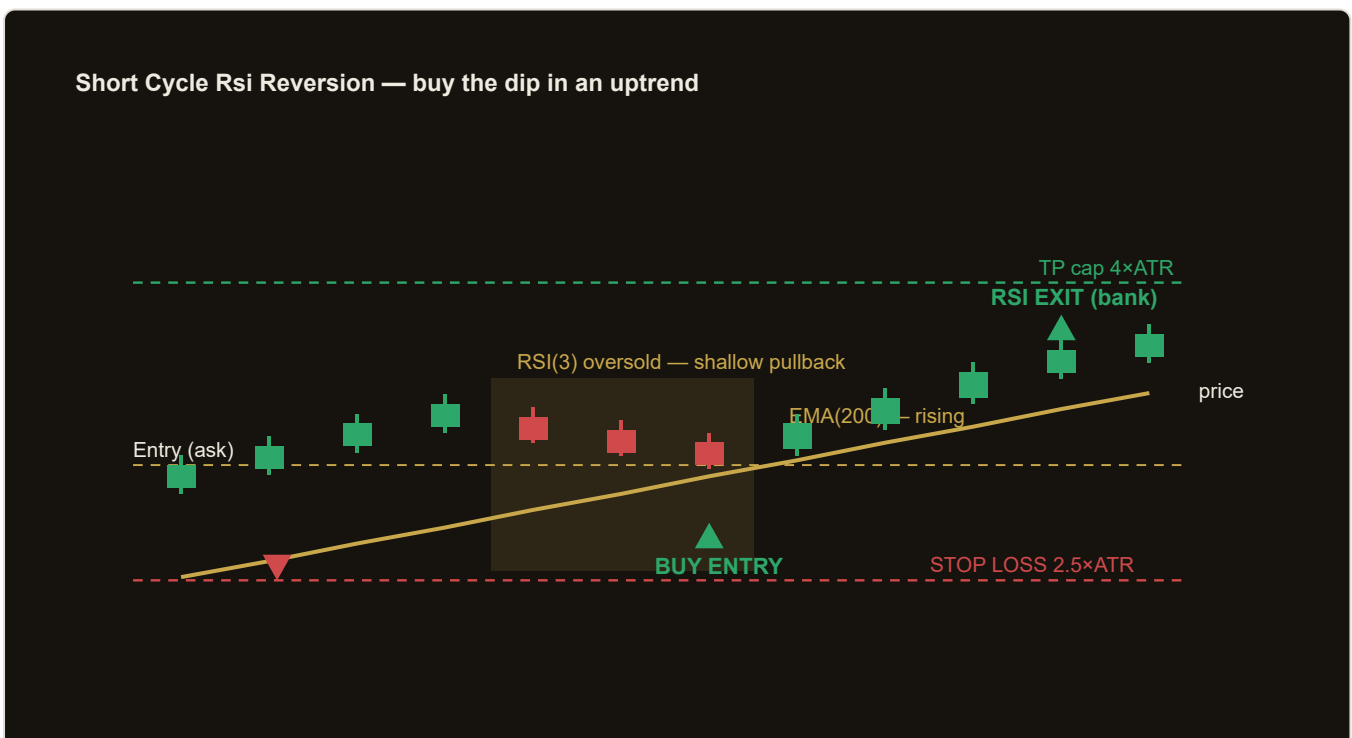
Position and execution controls

- **One position per magic:** only a single position is held at a time, so entries never stack while a snap-back is still resolving.
- **Spread gate:** new entries are blocked whenever the current spread exceeds `MaxSpreadPoints`, keeping the EA out of expensive execution windows.
- **Closed-bar discipline:** every indicator is evaluated on the last *closed* bar, so signals never repaint intrabar.

Note — faithful port. The MQL5 EA mirrors the reference C# strategy exactly: the C# engine acts only on closed bars, so the MQL5 code reads every indicator at buffer index `1` and the past-EMA at index `1 + SlopeLookback`. Both share the default magic number `7314`.

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. It depicts the long case: an established uptrend above a rising EMA, a shallow pullback that drives the short RSI oversold (the entry), and the resumption that carries price back up until RSI reverts to neutral (the exit).



Illustrative example only. Actual market behaviour varies.

Parameters

All inputs below are exposed on the EA's property sheet. Defaults match the reference strategy; the suggested ranges reflect the optimiser bounds built into the source.

Parameter	Default	Description
TrendPeriod	200	Period of the long EMA that defines the dominant trend. Range 50–300, step 10.
SlopeLookback	5	How many bars back the EMA is compared against to judge its slope (rising vs. falling). Range 1–30, step 1.
RsiPeriod	3	Short RSI period — deliberately fast so it snaps to extremes on shallow pullbacks. Range 2–14, step 1.
OversoldLevel	15.0	A dip counts as oversold at or below this level (a rally is overbought at or above 100 – this). Range 5–40, step 1.
ExitLevel	55.0	RSI-reversion exit: close a long once RSI recovers to or above this (short closes at 100 – this). Range 45–75, step 1.
AtrPeriod	14	ATR period used for volatility-scaled risk. Range 7–30, step 1.
SIATRmult	2.5	Stop-loss distance, expressed as this many ATRs from entry. Range 1.0–5.0, step 0.25.
TpATRmult	4.0	Take-profit (safety cap) distance, expressed as this many ATRs from entry. Range 1.0–8.0, step 0.25.
MaxSpreadPoints	30	Skip new entries when the current spread (in points) exceeds this value. Range 1–200, step 1.
Lots	0.10	Trade volume in lots. Range 0.01–1.00, step 0.05.
Magic	7314	Magic number identifying this EA's positions. Range 0–9,999,999, step 1.

Recommended Settings

The strategy is designed for a liquid trending instrument on an intraday timeframe, where impulses and pullbacks are frequent and the spread stays modest.

- **Symbols:** liquid trenders such as EURUSD, GBPUSD or XAUUSD.
- **Timeframes:** M15 to H1.

- **Style:** trend-following at heart, mean-reversion by entry.

Example — EURUSD M15, default configuration

With `TrendPeriod=200` and `SlopeLookback=5`, the EA waits for price to sit above a rising 200-EMA. A brief 2–3 bar dip drives the fast `RsiPeriod=3` RSI to 15 or below, and a long is opened at the ask with the stop $2.5 \times \text{ATR}$ below and the safety cap $4 \times \text{ATR}$ above. The position is banked as soon as RSI climbs back to 55, typically well before the ATR target is reached.

Tuning tips. A lower `OversoldLevel` (e.g. 10) demands deeper pullbacks — fewer but higher-quality entries. Raising `ExitLevel` toward 65–75 lets winners run further into the trend before banking. Widen `MaxSpreadPoints` for higher-spread symbols such as gold, and always match `AtrPeriod` /multipliers to the volatility of your chosen timeframe.

Validate before going live. Every parameter interacts with the symbol's volatility and spread profile. Backtest and forward-test on a demo account with your broker's exact conditions before committing real capital.

How to Install on MetaTrader 5

- 1 Copy `ShortCycleRsiReversion.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

Risk Warning

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