

Sweep Rejection Reversal

Expert Advisor Documentation

PLATFORM

MetaTrader 5 (MT5)

TYPE

Price-Action Reversal (Liquidity Sweep)

TIMEFRAME

Any (timeframe-agnostic)

WEBSITE

www.algotbot.live

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Overview

Sweep Rejection Reversal is a pure price-action reversal Expert Advisor that trades the classic "*stop-hunt then snap back*" failure-of-breakout pattern. It uses no indicators at all — every decision is derived from raw OHLC candle geometry, which makes the logic transparent and the strategy fully timeframe-agnostic.

The EA looks for two events occurring on a single candle:

- **Liquidity sweep** — a bar pokes its low (or high) beyond the most recent swing extreme, tripping the resting stop orders that sit just below support or above resistance.
- **Rejection pin** — that *same* bar slams price back, closing on the far side of the swept level with a long rejection wick and a small body.

When both conditions align, the breakout has failed: liquidity was grabbed and immediately rejected. The EA fades that move, entering in the opposite direction with a stop just beyond the swept wick and a take-profit set at a fixed multiple of the risk.

How It Works

Bar evaluation

On every tick the EA first confirms there is enough history (`Lookback + 3` bars). It then evaluates only the **most recently completed bar** (shift 1) and processes it **once per bar** by comparing its open time against the last signal time. This avoids repainting and prevents duplicate signals within the same candle. Only one position per magic number is held at a time.

Defining the level

The support / resistance level being defended is the highest high and lowest low over the `Lookback` bars immediately behind the trigger bar (shifts 2 through `Lookback + 1`). This rolling swing extreme is what resting stop orders cluster around.

Trigger-bar geometry

For the completed signal bar the EA measures:

- **Range** = High – Low (must be positive).
- **Body** = |Close – Open|.
- **Lower wick** = min(Open, Close) – Low.
- **Upper wick** = High – max(Open, Close).
- **Small body** = Body ≤ `BodyMaxRatio` × Range (keeps the candle a pin, not a full-body bar).

Long entry — bullish rejection

A long is taken when the bar sweeps below support and reclaims it with a bullish pin:

- **Swept low:** the bar's Low pierced below the prior swing low.
- **Reclaim:** the bar's Close finished back above that swing low.
- **Bull pin:** the lower wick is at least `WickRatio` × Range, the body is small, and the Close is at or above the Open.

Entry is placed at the **Ask**. The stop-loss sits `StopBuffer` × Range *below* the trigger bar's Low, and the take-profit is `RewardRatio` × (risk distance) above entry.

Short entry — bearish rejection

A short mirrors the long. The bar sweeps above resistance and reclaims it with a bearish pin:

- **Swept high:** the bar's High pierced above the prior swing high.
- **Reclaim:** the bar's Close finished back below that swing high.

- **Bear pin:** the upper wick is at least $\text{WickRatio} \times \text{Range}$, the body is small, and the Close is at or below the Open.

Entry is placed at the **Bid**. The stop-loss sits $\text{StopBuffer} \times \text{Range}$ above the trigger bar's High, and the take-profit is $\text{RewardRatio} \times (\text{risk distance})$ below entry.

Exit logic

There is no trailing or time-based exit. Once a position is open, the broker-side stop-loss and take-profit manage it entirely. Because both are derived from the trigger bar's own range, the actual price distances scale automatically with the volatility of whatever symbol and timeframe the EA is attached to.

Note — Stops and targets are anchored to the trigger candle's range, so the strategy adapts to volatility on its own. There is no fixed pip stop to re-tune when switching instruments or timeframes.

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
Lookback	12	How many prior bars define the swing high / low that acts as support / resistance. Range 5–40, step 1.
WickRatio	0.55	The rejection wick must be at least this fraction of the trigger bar's total range. Range 0.40–0.80, step 0.05.
BodyMaxRatio	0.40	The body must be at most this fraction of the range, keeping the candle a pin rather than a full-body bar. Range 0.20–0.60, step 0.05.
StopBuffer	0.10	The stop is placed this fraction of the trigger range beyond the swept wick. Range 0.00–0.50, step 0.05.
RewardRatio	2.0	Take-profit distance as a multiple of the stop distance (risk:reward). Range 1.0–4.0, step 0.5.
Lots	0.10	Fixed trade size in lots. Range 0.01–1.00, step 0.05.
Magic	1001	Magic number used to identify and isolate this EA's positions (one open position per magic at a time).

Recommended Settings

Because stops and targets scale with each trigger bar's range, the EA does not need per-symbol pip tuning. The defaults are a reasonable starting point on most liquid FX pairs and indices.

- **Timeframe:** the strategy runs on whatever timeframe the chart is set to. Higher timeframes (H1 and above) tend to produce cleaner, less frequent sweeps; lower timeframes generate more signals with more noise.
- **Lookback:** larger values demand a more significant swing level be swept (fewer, higher-quality signals); smaller values react to shorter-term levels.
- **WickRatio / BodyMaxRatio:** raise `WickRatio` and lower `BodyMaxRatio` to insist on a more pronounced, cleaner rejection pin.
- **RewardRatio:** the default 2.0 gives a 2:1 target. Lower it for a higher hit-rate with smaller wins; raise it for fewer, larger winners.

Example — default long setup

On EURUSD H1 with `Lookback = 12`, a candle's low dips 4 pips below the 12-bar swing low (running the stops), then closes back above it with a lower wick spanning 60% of its range and a small body. With `StopBuffer = 0.10` and `RewardRatio = 2.0`, the EA buys at the Ask, places the stop just under the wick, and targets twice that distance above entry.

Tip — Run the MT5 Strategy Tester across the parameter ranges shown in the table (using the listed step sizes) to find robust settings for your chosen symbol and timeframe before any live use.

How to Install on MetaTrader 5

- 1 Copy `SweepRejectionReversal.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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