

Swing Level Reclaim

Expert Advisor Documentation

PLATFORM

MetaTrader 5 (MT5)

TYPE

Liquidity Sweep Reversal

TIMEFRAME

H1 (works M15–H4)

WEBSITE

www.algotbot.live

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Overview

Swing Level Reclaim is a price-action reversal Expert Advisor that trades the *false break* — the “sweep & reclaim” pattern that so often appears where resting stop-loss orders cluster just beyond obvious swing structure. Rather than chasing breakouts, it waits for price to briefly wick past a confirmed support or resistance level (sweeping that liquidity) and then snap decisively back, confirming the move was a trap rather than a genuine breakout.

Structure is mapped automatically with **fractal swing pivots**, and each candidate reversal must be endorsed by **RSI momentum** turning in the trade’s direction. A controlled wick beyond the level is a setup; a decisive close beyond it is treated as a real break that *invalidates* the level instead of triggering a trade. This single filter is what keeps false signals low.

The EA manages one position per magic number, places its stop just past the swept extreme (the logical invalidation point) buffered by ATR, and targets a fixed reward-to-risk multiple. It is symbol- and timeframe-agnostic, running on whatever instrument and period it is attached to.

Core idea: A swing level that is wicked and immediately reclaimed has just absorbed the stops sitting beyond it. With momentum confirming, the path of least resistance is back through the level — the EA enters on the reclaim and risks only to the swept extreme.

How It Works

1. Mapping structure with fractal swing pivots

On each completed bar the EA scans a symmetric window of `SwingLookback` bars on either side of a candidate pivot. If the middle bar's low is the lowest in the window, it is confirmed as a **swing-low support**; if its high is the highest, it is confirmed as a **swing-high resistance**. Each newly confirmed level is stamped with the bar count at which it formed and flagged as "fresh" (tradable).

2. The sweep & reclaim entry

Over the last `ReclaimBars` bars the EA tracks the lowest low and highest high (the *sweep window*). A valid **long** setup requires all of the following:

- A fresh swing-low support exists;
- The sweep low dipped **below** support (stops were swept);
- The penetration was a controlled wick: $(\text{support} - \text{sweepLow}) \leq \text{MaxPenetrationAtr} \times \text{ATR}$;
- The current bar **closes back above** support and is bullish (close > open);
- RSI is **turning up** ($\text{rsiNow} > \text{rsiPrev}$) and not yet overbought ($\text{rsiNow} < \text{RsiUpper}$).

A **short** setup is the exact mirror image around a fresh swing-high resistance: a controlled wick above resistance, a bearish close back below it, and RSI turning down while still above `RsiLower`.

3. Level invalidation & expiry

Levels do not live forever, and not every break is a trap. Each fresh level is retired when either:

- **It goes stale** — more than `LevelExpiry` bars have passed since it formed; or
- **It is decisively broken** — price *closes* beyond it by more than $\text{MaxPenetrationAtr} \times \text{ATR}$ (a genuine breakdown/breakout, not a wick).

This is the heart of the edge: a real break expires the level rather than producing a (losing) counter-trend trade. Only a wick-and-reclaim survives to become a signal.

4. Stops, targets & sizing

The stop is placed just past the swept extreme — the price level that invalidates the entire idea — with an ATR buffer:

```
LONG : SL = sweepLow - AtrSIMult × ATR
      TP = entry + RewardRisk × (entry - SL)

SHORT: SL = sweepHigh + AtrSIMult × ATR
      TP = entry - RewardRisk × (SL - entry)
```

Risk (the entry-to-stop distance) is measured live, and the take-profit is set at a fixed `RewardRisk` multiple of that risk. Position size is the fixed `Lots` value, rounded to two decimals and floored at 0.01, then clamped to the broker's min/max/step in the MQL5 build.

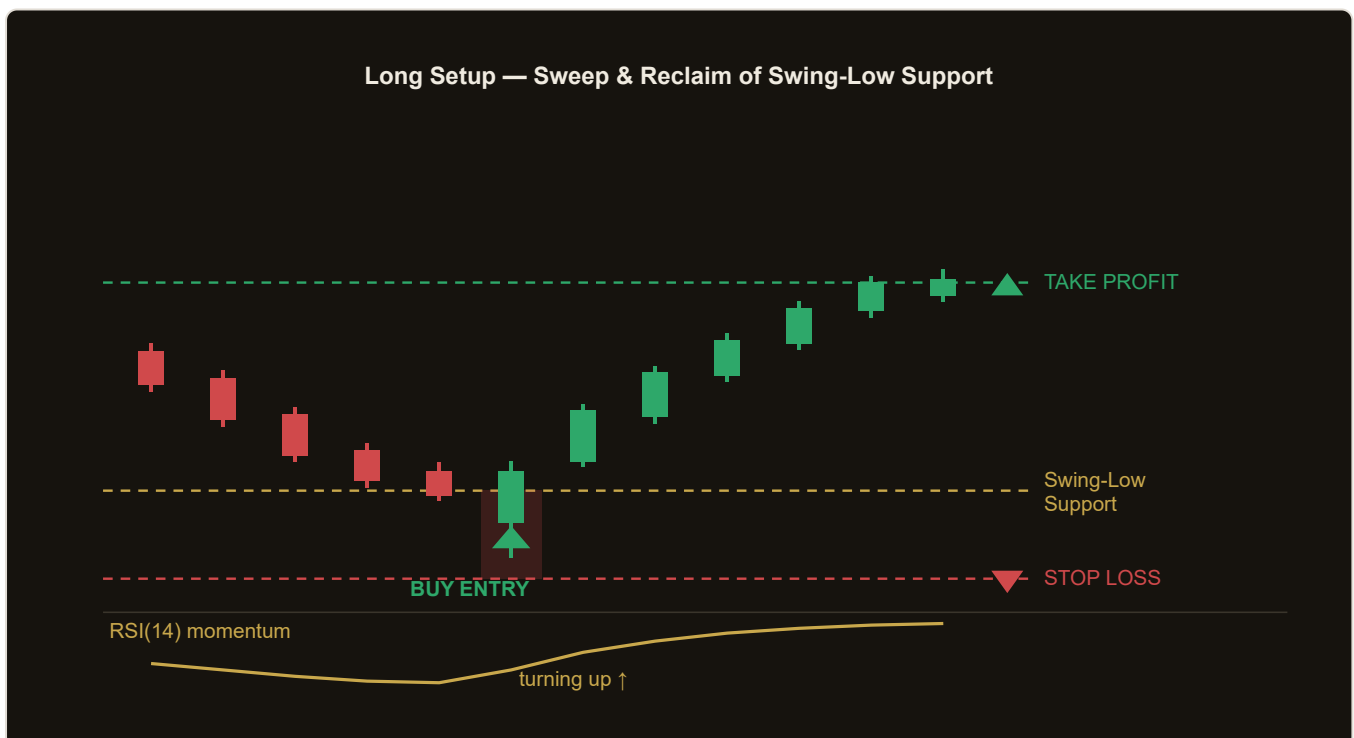
5. Position management

The EA holds **at most one position per magic number**. While a trade is open it takes no new signals; the level that produced the entry is "consumed" (marked not-fresh) the instant the order is sent, so a single swing level never fires twice. Exits are fully handled by the attached stop-loss and take-profit — there is no time-based or trailing exit.

Evaluation cadence: The strategy evaluates *once per completed bar* (new-bar detection), not on every tick. Signals and indicator readings are taken from the last closed candle, so behaviour is consistent between the C# backtest engine and the live MQL5 EA.

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 a **long** sweep & reclaim: price wicks below a confirmed swing-low support, closes back above it as RSI turns up, and the EA enters with a stop just under the swept low and a take-profit at a fixed reward:risk multiple.



Illustrative example only. Actual market behaviour varies.

Reading the chart

Price drifts down to the gold support line, then one candle wicks into the shaded zone (sweeping resting stops) but *closes back above* support — a controlled wick, not a breakdown. With RSI hooking up, the EA buys at the reclaim close, sets the stop just below the swept low, and targets a fixed reward:risk multiple at the green line.

Parameters

| Parameter | Default | Description |
|-------------------|---------|--|
| SwingLookback | 3 | Fractal half-window: bars required on each side of a pivot to confirm a swing high/low. Range 2–8, step 1. Higher = fewer, stronger levels. |
| ReclaimBars | 3 | Length of the sweep/reclaim lookback window used to find the swept extreme. Range 1–6, step 1. |
| MaxPenetrationAtr | 0.80 | Maximum wick beyond a level, in ATR units, for the break to count as a sweep. A close beyond this distance instead invalidates the level. Range 0.20–2.0, step 0.10. |
| LevelExpiry | 60 | Number of bars a confirmed level stays tradable before it goes stale. Range 10–200, step 10. |
| RsiPeriod | 14 | Lookback period for the RSI momentum-confirmation filter. Range 5–30, step 1. |
| RsiUpper | 65 | RSI ceiling for longs — momentum must be rising but below this to avoid chasing overbought conditions. Range 50–80, step 1. |
| RsiLower | 35 | RSI floor for shorts — momentum must be falling but above this to avoid chasing oversold conditions. Range 20–50, step 1. |
| AtrPeriod | 14 | Lookback period for the ATR used in penetration limits and stop sizing. Range 5–30, step 1. |
| AtrSIMult | 0.50 | ATR buffer added beyond the swept extreme when placing the stop-loss. Range 0.10–2.0, step 0.10. |
| RewardRisk | 1.80 | Take-profit distance as a multiple of the entry-to-stop risk. Range 1.0–4.0, step 0.10. |
| Lots | 0.10 | Fixed trade volume in lots (rounded to 2 dp, floored at 0.01, then clamped to broker min/max/step). Range 0.01–1.0, step 0.01. |
| Magic | 7701 | EA magic number used to tag and isolate this strategy's single open position. |

Recommended Settings

The defaults are a balanced starting point for liquid FX majors on the H1 timeframe. Because the EA is symbol- and timeframe-agnostic, always validate on the exact instrument and period you intend to run before deploying.

- **Instruments:** liquid FX majors (e.g. EUR/USD, GBP/USD, USD/JPY) where swing structure and stop-hunts are well defined.
- **Timeframe:** H1 as the primary; M15–H4 are reasonable alternates. Lower timeframes produce more, noisier levels.
- **Structure sensitivity:** raise `SwingLookback` (e.g. 4–5) for fewer, higher-quality levels on noisy symbols; lower it for more frequent setups.
- **Sweep tolerance:** widen `MaxPenetrationAtr` on volatile instruments so legitimate wicks are not mistaken for real breaks; tighten it to be more selective.
- **Targets:** `RewardRisk` 1.8 balances hit-rate and payoff; values above 2.5 favour fewer, larger winners.

Tip: Optimise `SwingLookback`, `MaxPenetrationAtr`, `RsiPeriod` and `RewardRisk` together — they jointly control how often a setup appears and how much room each trade is given. Validate any optimised set on out-of-sample data before going live.

Position sizing: `Lots` is a fixed volume — it does *not* scale with account equity or per-trade risk. Size it deliberately for your account, since the monetary risk per trade varies with the ATR-based stop distance.

How to Install on MetaTrader 5

- 1 Copy `SwingLevelReclaim.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

Note: The EA evaluates once per completed bar. After attaching it, allow enough history to load — it needs at least `max(2×SwingLookback+1, RsiPeriod+2, AtrPeriod+2, ReclaimBars+1)` bars before it can confirm levels and produce signals.

Risk Warning

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