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Pivot Rejection Reversal

Expert Advisor Documentation

PLATFORM	TYPE	TIMEFRAME	WEBSITE
MetaTrader 5 (MT5)	Mean Reversion	Intraday (M15–H1)	www.algobot.live

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Overview

Pivot Rejection Reversal is a mean-reversion Expert Advisor that combines classic floor pivot points with a candlestick rejection (pin-bar) pattern to fade over-extensions back toward equilibrium. Rather than chasing momentum, it waits for price to probe a pivot support or resistance level and then *reject* it — printing a candle with a dominant wick that closes the probe back inside the level — before entering against the exhausted move.

Every `PivotPeriod` completed bars, the EA snapshots a fresh "session" range (its highest high, lowest low and last close) and computes the standard five-point pivot set: the central pivot (PP), first and second resistance (R1/R2) and first and second support (S1/S2). These frozen levels act as the reference zones the strategy trades around until the next session is complete.

The logic is deliberately timeframe-agnostic — all bar access flows through the chart's primary timeframe, so the pivot "session" simply scales to whatever timeframe is applied at run time. It is well suited to liquid FX majors such as GBPUSD or EURUSD, and to XAUUSD, on intraday timeframes. Every trade carries a defined stop and a fixed reward:risk target, so risk is bounded before entry.

> **Core idea:** A test of a pivot level that is immediately rejected (a long lower wick at support, or a long upper wick at resistance) signals that the extension has been absorbed. The EA fades that rejection, aiming for a controlled move back toward equilibrium with risk capped beyond the rejection extreme.

How It Works

1. Building the Pivot Session

On each completed bar the EA feeds the bar's high, low and close into a running accumulator. It tracks the session's highest high, lowest low and most-recent close. Once `PivotPeriod` bars have accumulated, the classic floor-pivot formulas freeze the levels and the accumulator resets to begin the next session:

```
PP = (High + Low + Close) / 3
R1 = 2 × PP − Low        S1 = 2 × PP − High
R2 = PP + (High − Low)     S2 = PP − (High − Low)
```

Until the first full session completes, no levels exist and the EA takes no trades.

2. Detecting a Rejection Candle

The strategy evaluates only the most recently *closed* bar (bar 1), acting once per bar. It measures the two wicks relative to the bar's total range:

- **Lower wick** = `min(Open, Close) − Low`
- **Upper wick** = `High − max(Open, Close)`

A candle qualifies as a rejection when its dominant wick is at least `WickRatio` of the full bar range — a pin-bar signature indicating price was pushed to an extreme and then firmly rejected before the close.

3. Entry Logic

The EA distinguishes support rejections (longs) from resistance rejections (shorts). A level is considered "rejected" when the bar pokes to or through it, stays on the correct side of the next-deeper level, and closes back inside:

- **Long (support rejection):** the bar is bullish (`Close > Open`), its lower wick ≥ `WickRatio × Range`, and its low probes S1 (or, deeper, S2) while the close reclaims back above that level.
- **Short (resistance rejection):** the bar is bearish (`Close < Open`), its upper wick ≥ `WickRatio × Range` , and its high probes R1 (or, higher, R2) while the close falls back below that level.

Longs enter at the current Ask; shorts enter at the current Bid. The deeper S2/R2 levels are checked as a fallback so that a sharp overshoot past S1/R1 can still trigger a trade at the more extreme level.

Worked example — long off S1

Suppose the active session pins S1 at 1.26500. The next bar sells off to a low of 1.26440 (a probe below S1), but buyers step in and it closes at 1.26560 with a long lower wick that is 55% of the bar's range. Because the close reclaimed S1 and the lower wick exceeds the 0.45 `WickRatio` default, the EA buys at the Ask. The stop is placed just below 1.26440 (buffered by ATR) and the target is set 1.6× the risk distance above entry.

4. Stops & Targets

Risk is defined on every trade. The stop sits beyond the rejection extreme, buffered by a fraction of the Average True Range so it clears normal noise:

- **Long stop:** `Low − AtrStopMult × ATR`
- **Short stop:** `High + AtrStopMult × ATR`

The take-profit is a fixed multiple of that risk distance: `TP = Entry ± RewardRisk × Risk`. With the default `RewardRisk` of 1.60, each winning trade targets 1.6 times the amount risked. The ATR is computed over `AtrPeriod` bars, and a trade is skipped whenever ATR or the measured risk distance is non-positive.

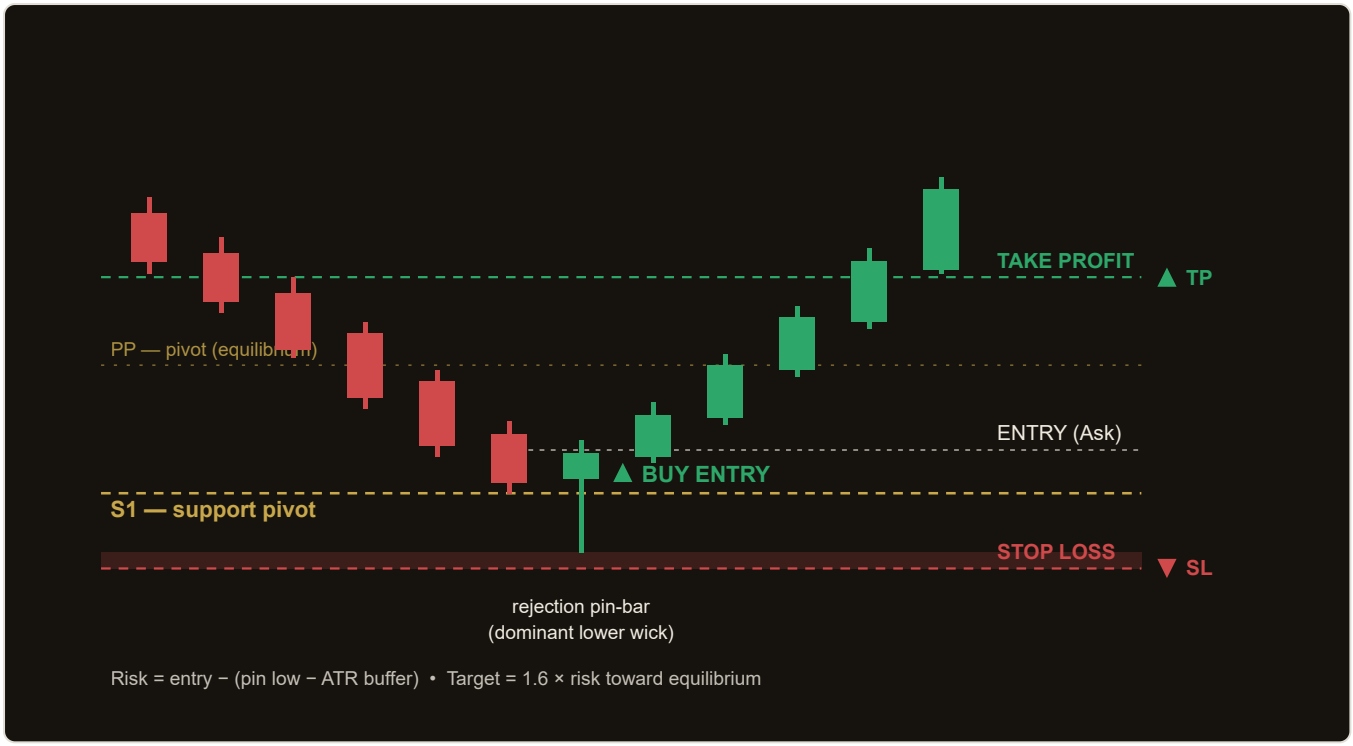
5. Position Management

The EA holds **one position at a time** per magic number. While a trade is open no new signals are taken, which keeps risk contained and the rules clean. Positions are managed entirely by their attached stop-loss and take-profit — there is no averaging, grid, or martingale behaviour.

> **No hedging or scaling.** This EA is designed to run a single, fully-bracketed position at once. It does not add to losers or open opposing trades. If you attach it to multiple charts, give each instance a distinct `Magic` number to keep their positions isolated.

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
PivotPeriod	`24`	Number of completed bars in each pivot "session". After this many bars the floor pivots (PP, R1/S1, R2/S2) are recomputed and frozen. Range 8–96, step 4.
WickRatio	`0.45`	Minimum share of the bar's total range that the dominant wick must occupy for the bar to count as a rejection pin-bar. Higher values demand a more pronounced wick. Range 0.25–0.70, step 0.05.
AtrPeriod	`14`	Lookback length for the Average True Range used to buffer the stop beyond the rejection extreme. Range 7–28, step 1.
AtrStopMult	`0.60`	ATR multiple added beyond the rejection extreme when placing the stop-loss. Larger values give the trade more breathing room at the cost of a wider stop. Range 0.20–1.50, step 0.10.
RewardRisk	`1.60`	Reward-to-risk multiple. The take-profit is placed this many times the stop distance away from entry. Range 1.00–3.00, step 0.20.
Lots	`0.10`	Fixed trade volume in lots. Range 0.01–1.00, step 0.01.
Magic	`8801`	Unique magic number identifying this EA's positions. Give each chart instance a distinct value so their trades stay isolated.

> **Tip:** `WickRatio` is the primary selectivity dial. Raising it filters for cleaner, more dramatic rejections (fewer but higher-quality signals); lowering it accepts more marginal pin-bars. Tune it together with `PivotPeriod`, which controls how often the reference levels refresh.

Recommended Settings

The EA is timeframe-agnostic, but it is best suited to liquid instruments on intraday charts where pivot levels are widely watched and rejections are meaningful.

INSTRUMENTS

- **FX majors:** GBPUSD, EURUSD — tight spreads and clean intraday structure.
- **Metals:** XAUUSD — respects pivot levels well but expect wider ATR-based stops.

TIMEFRAME

- **M15–H1** is a sensible starting range. On lower timeframes reduce noise by raising `WickRatio`; on higher timeframes a longer `PivotPeriod` keeps sessions meaningful.

SUGGESTED STARTING CONFIGURATION

```
PivotPeriod = 24
WickRatio   = 0.45
AtrPeriod   = 14
AtrStopMult = 0.60
RewardRisk  = 1.60
Lots        = 0.10
```

> **Before going live:** Always backtest and forward-test on a demo account with your broker's specific spreads and execution before committing real capital. Optimise `WickRatio`, `PivotPeriod` and `RewardRisk` on your chosen symbol and timeframe, and validate the result out-of-sample.

How to Install on MetaTrader 5

1. Copy `PivotRejectionReversal.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 needs at least one full pivot session (`PivotPeriod` bars) plus the ATR warm-up before it can place its first trade. Allow it to run through this warm-up period on a fresh chart before expecting signals.

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.