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Camarilla Pivot Reversion

Expert Advisor Documentation

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

> ⚠ **Important Disclaimer** This document is for educational and informational purposes only. It does not constitute financial or investment advice. Trading forex, CFDs, and other leveraged instruments involves substantial risk of loss and is not suitable for all investors. Past backtest performance does not guarantee future results. Never trade with capital you cannot afford to lose.

Overview

Camarilla Pivot Reversion is an intraday mean-reversion Expert Advisor built around the classic **Camarilla pivot** levels. Once per day it computes a static ladder of price levels from the *previous* day's High, Low and Close, then trades the well-documented Camarilla behaviour: on a normal, non-trending session, price tends to oscillate inside the H3–L3 band and revert toward the central pivot.

The EA treats the lower reversal rail (`L3`) as fresh support and the upper reversal rail (`H3`) as fresh resistance. When price probes one of these rails but closes back inside the band, the EA fades the move and targets the central pivot `P` as its take-profit magnet. The wider H4/L4 rails mark where the reversion thesis fails — a breakout day — and so serve as the location for the protective stop.

The strategy is **single-timeframe compliant**: the previous day's OHLC is reconstructed from the primary chart's bars by detecting the calendar-day rollover, so nothing here ever reads a second or higher timeframe. Levels are computed once at each day rollover and held fixed for the whole session, making them fully **non-repainting**. Its natural home is a liquid FX major such as **EURUSD** or **GBPUSD** on **M15** — the textbook environment for Camarilla intraday reversion.

> **Camarilla in one sentence.** A ladder of intraday support/resistance levels derived from yesterday's range — the inner H3/L3 rails frame a mean-reverting band, the central pivot P is the magnet price gravitates back toward, and the outer H4/L4 rails mark the breakout boundary.

How It Works

The Camarilla Ladder

At each calendar-day rollover the EA freezes the day that just completed and rebuilds the Camarilla ladder from its High (`H`), Low (`L`) and Close (`C`). With a tunable range factor `f` (textbook value 1.1):

```
range = H - L

H4 = C + range * f/2      L4 = C - range * f/2      (breakout / stop rails)
H3 = C + range * f/4      L3 = C - range * f/4      (reversal rails)
P  = (H + L + C) / 3                                (central magnet)
```

These five levels stay **static for the entire following session**. Because they are derived only from bars that have fully closed, they never repaint. The previous day's OHLC itself is accumulated bar-by-bar from the primary timeframe and locked in the moment a new calendar day begins.

Entry Logic

The EA evaluates a setup only **once per newly-closed primary bar**. It inspects the bar that has just closed (shift 1) and looks for a rejection of one of the inner reversal rails:

- **Long (bounce off L3):** a *bullish* candle (`Close > Open`) whose Low dips to — or pierces — the `L3` support zone, yet whose Close finishes back above `L3`, below the central pivot `P`, and above the `L4` rail. L3 held: buy the bounce.
- **Short (rejection at H3):** a *bearish* candle (`Close < Open`) whose High spikes to — or pierces — the `H3` resistance zone, yet whose Close finishes back below `H3`, above the central pivot `P`, and below the `H4` rail. H3 held: sell the rejection.

The "touch" of a rail is defined by the `ZoneFrac` parameter: the candle's extreme must come within `ZoneFrac × (prior day's range)` of the rail to qualify. This widens or narrows the zone that counts as a genuine test of support/resistance.

Exit Logic — Stop Loss & Take Profit

Every position ships with a structural take-profit and a volatility-based stop, so no separate exit tick logic is required:

- **Take Profit** = the central pivot `P`. This is the reversion target — the magnet price is expected to drift back toward.
- **Stop Loss (long)** = `min(L4, candle Low) − StopBufferAtr × ATR`. The stop sits just beyond the L4 breakout rail, cushioned by an ATR-scaled buffer.
- **Stop Loss (short)** = `max(H4, candle High) + StopBufferAtr × ATR`. Symmetrically, just beyond the H4 rail plus the ATR buffer.

The ATR is measured over `AtrPeriod` completed primary bars, so the stop breathes with current volatility rather than using a fixed distance.

Trade Filters

- **Reward:Risk floor.** A setup is skipped unless `(distance to P) / (distance to stop) ≥ MinRewardRisk`. This rejects setups where the pivot magnet is too close to make the trade worthwhile.
- **Spread guard.** New entries are blocked when the current spread exceeds `MaxSpreadPoints` (in points), avoiding poor fills during thin or news-driven conditions.
- **One position per magic.** Only a single open position (per magic number, per symbol) is allowed at a time — the structural target and rail stop manage the exit.
- **Valid levels required.** No trade is taken until at least one full prior day has been captured and its range is positive, and until enough bars exist to compute the ATR buffer.

> **Why the central pivot as target?** On a range-bound session, both rails feed price back toward the day's fair value — the pivot P. Targeting P rather than the opposite rail books the reversion move that is statistically most reliable, without betting the band will hold all the way across.

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.

Reading the chart

Price drifts down and the setup candle (green) dips into the shaded `L3` zone — its Low pierces below support — but it *closes back above L3*. That rejection triggers the long entry. The protective stop sits just below the `L4` rail (minus an ATR buffer); price then reverts up toward the central pivot `P`, where the take-profit is booked. The short setup is the mirror image at `H3` / `H4`.

Parameters

Parameter	Default	Description
RangeFactor	`1.10`	Camarilla range factor (textbook 1.1). Widens or narrows the whole ladder. Range 0.80–1.40, step 0.05.
ZoneFrac	`0.08`	How close, as a fraction of the prior day's range, the candle's extreme must come to L3 / H3 to count as a "touch" of the reversal rail. Range 0.01–0.30, step 0.01.
AtrPeriod	`14`	ATR lookback (in completed primary bars) used to size the stop buffer beyond the L4 / H4 rail. Range 5–50, step 1.
StopBufferAtr	`0.60`	Stop buffer beyond the L4 / H4 rail, expressed in ATR multiples. Range 0.00–3.00, step 0.10.
MinRewardRisk	`0.80`	Minimum acceptable reward:risk (distance to pivot P ÷ distance to stop). Setups below this are rejected. Range 0.30–3.00, step 0.10.
MaxSpreadPoints	`100`	Skip new entries when the current spread (in points) is wider than this. Range 5–300, step 5.
Lots	`0.10`	Order volume in lots. Range 0.01–1.00, step 0.05.
Magic	`7731`	Expert magic number used to identify and manage this EA's positions. Range 0–9,999,999, step 1.

Recommended Settings

The EA is tuned for liquid FX majors on an intraday chart, where Camarilla reversion behaves most textbook-like.

- **Symbol:** a liquid FX major such as **EURUSD** or **GBPUSD**.
- **Timeframe: M15** — enough bars per day to reconstruct the prior session cleanly while still catching intraday rail tests.
- **RangeFactor:** leave at the textbook `1.10`; nudge lower (e.g. 1.00) for tighter, more frequent rails or higher (e.g. 1.25) to demand deeper tests.
- **ZoneFrac:** `0.08` is a balanced touch zone. Raise it if genuine rail tests are being missed; lower it to insist on a cleaner tag.
- **StopBufferAtr / MinRewardRisk:** the defaults (`0.60` / `0.80`) balance stop survivability against setup frequency. Increase the buffer on noisier symbols; raise MinRewardRisk to be more selective.

- **MaxSpreadPoints:** tighten toward your broker's typical spread on the chosen pair to avoid poor fills.

> **Tip.** Because levels are frozen at each day rollover, always run the EA on a server timezone that matches how you want the "daily" range to be cut. Backtest across several months and multiple pairs before committing to live parameters.

> **Trend-day caution.** Camarilla reversion assumes a range-bound session. On strong trending days price can blow through H3/L3 and run to the H4/L4 rails — exactly where the stop lives. The reward:risk floor and ATR-buffered stop mitigate but do not eliminate this; expect drawdowns during sustained directional moves.

How to Install on MetaTrader 5

1. Copy `CamarillaPivotReversion.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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