

PREMIUM USER GUIDE

Architecture • models • market regimes • risk • interface • testing

UNDERSTAND FIRST. THEN TRADE.

A detailed technical guide - from the first launch to understanding how 5 models, 1,360 decision trees and 6 market regimes are combined into one final CONSENSUS decision.

5 MODELS

1360 TREES

6 REGIMES

H1 + M15



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The guide moves from a simple first launch to the internal architecture, and only then to testing and LIVE trading.

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Launch in 10 minutes

If MetaTrader 5 is already installed and the product is purchased, follow these steps in order.

1 Install from Market

Sign in to the same MQL5 account and install BTCUSD Consensus through Market / My Purchases.

2 Open BTCUSD H1

Use your broker's BTCUSD / Bitcoin symbol. Symbol suffixes are supported.

3 Check GMT / DST

Default: GMT +2 and DST = TRUE. If your server is different, change the settings before launch.

4 Choose risk mode

AUTO RISK 1% or FIXED LOT. Leave the rest of the strategy at default settings for the first launch.

5 Enable Algo Trading

Enable automated trading in the terminal and in the EA properties.

6 Let the system warm up

H1/M15 history is required. The panel will show when data and models are ready.

Do not judge the EA by 'no immediate trade = not working'. WAIT is a normal system decision: an entry appears only after models, regime and execution gates are passed.

How to install from MQL5 Market

For the Market version, use the official MetaTrader 5 installation mechanism.

1

Community

Tools → Options → Community. Sign in to the MQL5 account used for the purchase.

2

My Purchases

Open Market → My Purchases / Purchased. Press Refresh if the product does not appear.

3

Install

Install BTCUSD Consensus. The EA will appear in Navigator → Expert Advisors → Market.

4

BTCUSD H1

Open a BTCUSD chart, select H1 and drag the EA onto the chart.

5

Inputs

Check risk settings and, importantly, your broker's GMT / DST.

6

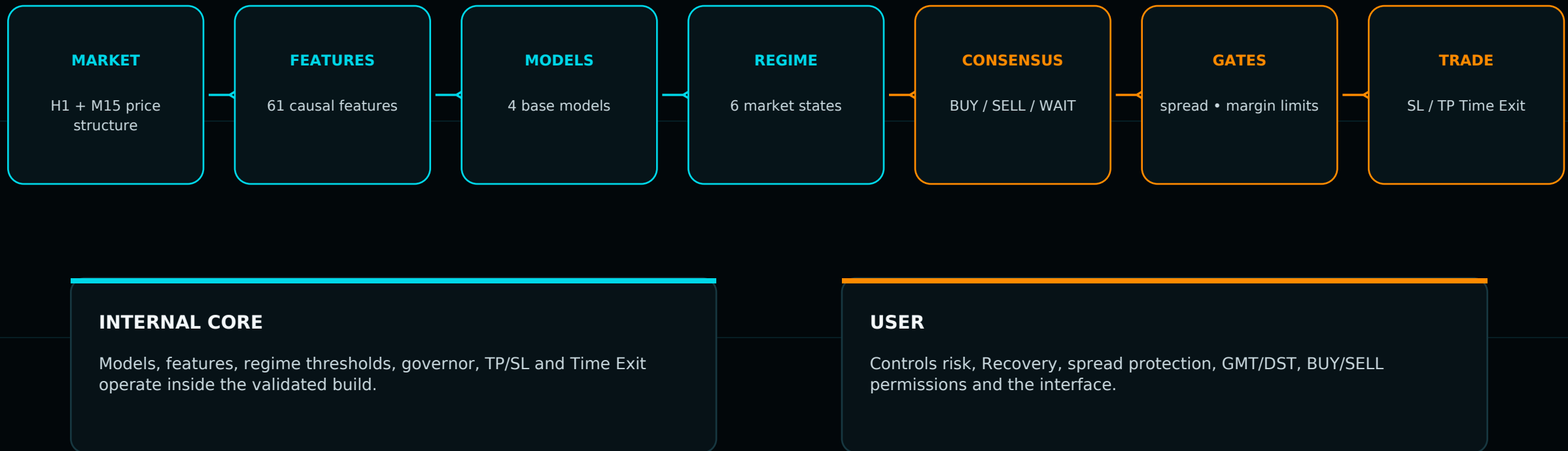
Algo Trading

Enable automated trading and wait for the first completed H1 cycles.

MQL5 VPS is supported. Starting from v1.65, graphical resources are optimized for synchronization without changing the trading core.

Not one signal, but a chain of decisions

BTCUSD Consensus first describes the market, then compares the models, and only after that allows execution.



H1 + M15 normalized to UTC

The models read closed price data. The broker's server time is first normalized to UTC.

H1 - main cycle

A new evaluation is performed on a closed H1 bar. Feature calculations use deep history of up to 220+ hours.

M15 - hourly structure

Inside each H1, four M15 quarters are considered: direction, path, candle bodies and range.

UTC - one common grid

GMT/DST is not cosmetic: a wrong offset changes H1/M15 boundaries and therefore changes input features.

Broker-neutral approach: the ML core relies on price and candle structure. Spread is used as an execution filter, while tick volume is not a model feature.

- The signal is built only from already closed data - no future candle is used.
- In live/tester mode, current Bid/Ask prices participate in execution, spread calculation and stop validation.
- The models are embedded in the EA: no external Python, DLL or cloud AI service is required for decisions.

61 causal market features

Not a 'set of indicators', but a compact description of price geometry, direction, path efficiency and volatility.

CANDLE GEOMETRY

range / ATR, body, close position, upper and lower shadows

RANGE POSITION

where price is located inside each horizon's range

EMA STRUCTURE

distance to EMA and slope for 6 • 12 • 24 • 48 • 96 hours

MULTI-RANGE

6 • 12 • 24 • 48 hour ranges normalized by ATR

MULTI-HORIZON RETURNS

2 • 3 • 6 • 12 • 24 • 48 • 72 • 120 • 168 hours

PATH EFFICIENCY

how directly price travelled instead of chopping back and forth

VOLATILITY

standard deviation of returns and ATR relative to its median

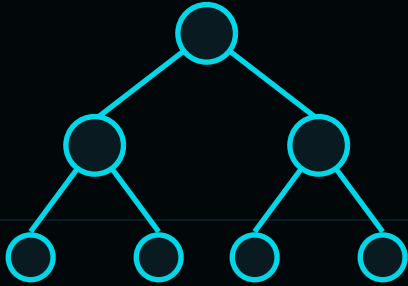
M15 MICROSTRUCTURE

up-fraction, return, path efficiency, first/last body, M15 range

ATR normalization helps the models read movement structure in relative terms instead of depending on whether Bitcoin is priced at 20,000 or 100,000.

What is a decision tree?

Each tree is a sequence of simple threshold questions about features. The system's strength comes not from one tree, but from the ensemble.



EXAMPLE OF ONE TREE'S LOGIC

1. Is volatility above its norm?
2. Is 24h path efficiency high enough?
3. Is price in the upper part of the range?

Leaf result: a small contribution to the scenario probability.

ONE TREE

A weak local hypothesis. It does not open a trade by itself.

MANY TREES

Each adds a small contribution. Their sum forms the model score.

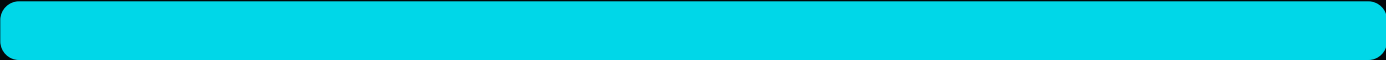
NO ONLINE TRAINING

The trees are not retrained on your account. The EA already contains the finished models.

1,360 trees in five models

Each model has its own ensemble. Four models form the base direction; SELL META works as the second layer.

D LONG



420 trees

D SHORT



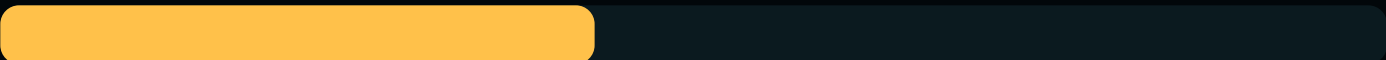
220 trees

U LONG



280 trees

U SHORT



180 trees

SELL META



1360

TOTAL TREES

420 + 220 + 280 + 180 + 260

D/U are internal names of separate ensembles. What matters here is their role: two LONG models, two SHORT models and a separate SELL META.

Four base models

Two models evaluate LONG scenarios and two evaluate SHORT scenarios. Their outputs are combined into two base scores.

LONG SIDE

D LONG + U LONG → combined BUY score.

If BUY is stronger than SELL, it is compared with the threshold of the current market regime.

SHORT SIDE

D SHORT + U SHORT → combined SELL score.

If SELL is stronger than BUY, it must pass its regime-specific threshold.

CONSENSUS

BUY • SELL • WAIT

A weak score does not become a trade just because one side is slightly stronger. Absolute signal strength must exceed the internal threshold of the current regime.

Second-level SELL validation

SELL META is a separate model that sees not only the market, but also what the four base ensembles are already 'thinking'.

61**BASE FEATURES**

The same causal H1/M15 market structure

4**MODEL SCORES**

D LONG • D SHORT • U LONG • U SHORT

6**REGIME FLAGS**

UP • DOWN • FLAT • COMP • EXP • TRANS

71**TOTAL INPUTS**

61 + 4 + 6

SELL META SCORE

can confirm a separate SELL setup

This is not a 'filter after the trade'. The meta-model participates before entry and acts as a separate confirmation route for SHORT scenarios.

Signal, threshold and governor

Even a strong model score passes two more layers: the current regime threshold and trading-frequency control.

1 • SCORE

BUY / SELL scores are compared with each other. The stronger side gets a chance to enter.

2 • THRESHOLD

Each of the 6 regimes has its own validated thresholds. They are hidden from accidental retuning.

3 • GOVERNOR

The threshold adapts slightly to actual trading activity so the system does not become overactive.

≤ 3

ENTRIES / DAY

Hard daily limit

~150

YEARLY ORIENT.

Internal frequency target, not a promise

190

YEAR HARDCAP

Hard upper limit per signal year

WAIT is a complete Decision Engine result. If the score does not pass the threshold, the EA does not invent a trade and simply waits for the next H1 cycle.

Six market states

The regime detector does not predict a trade. It describes the context in which model scores are then evaluated.

UP

directed upward movement

DOWN

directed downward movement

FLAT

low directional efficiency

COMPRESSION

range and ATR compression

EXPANSION

range / volatility expansion

TRANSITION

mixed transitional context

The detector first identifies extreme volatility states, then directional regimes, then flat. Anything ambiguous is classified as TRANSITION.

UP

The market is moving upward efficiently enough, and the 24h structure confirms the direction.

UP

WHAT THE DETECTOR LOOKS FOR

- Strong directional efficiency
- Positive slope of the medium-term structure
- Price is high in the 24h range

WHAT THIS MEANS FOR CONSENSUS

UP means the move looks structurally bullish, not just like one large green candle. LONG and SHORT are still evaluated, but UP-regime thresholds are used.

A strong SELL is still possible if its score and SELL META truly confirm the entry.

A regime is not itself a BUY/SELL command. It changes the context and the threshold the model score must pass.

DOWN

Mirror directional regime: efficient downward movement and a negative slope.

DOWN

WHAT THE DETECTOR LOOKS FOR

- Strong directional efficiency
- Negative slope of the medium-term structure
- Price is low in the 24h range

WHAT THIS MEANS FOR CONSENSUS

DOWN identifies a stable bearish structure. It is not a 'SELL-only mode': both sides still calculate probabilities, and the Decision Engine selects only a confirmed scenario.

Its threshold differs from UP because entry statistics differ across contexts.

A regime is not itself a BUY/SELL command. It changes the context and the threshold the model score must pass.

FLAT

The market moves inefficiently: the travelled path is large while net directional displacement is small.

FLAT

WHAT THE DETECTOR LOOKS FOR

- Low 24h efficiency
- Low 48h efficiency
- No clean directional regime

WHAT THIS MEANS FOR CONSENSUS

FLAT does not necessarily mean low volatility. Price can move actively inside a range while repeatedly returning.

The key is low directional efficiency, which requires a different threshold from a clean trend.

A regime is not itself a BUY/SELL command. It changes the context and the threshold the model score must pass.

COMPRESSION

Compression: relative ATR is lower and the current bar plus multi-hour range are compact.

COMPRESSION

WHAT THE DETECTOR LOOKS FOR

- ATR below its local norm
- Current H1 range is small
- 24h range / ATR remains compact

WHAT THIS MEANS FOR CONSENSUS

COMPRESSION describes a market that is 'squeezing'. It may precede a move, but the EA does not guess the breakout in advance.

Consensus still waits for model confirmation. Compression alone never creates a position.

A regime is not itself a BUY/SELL command. It changes the context and the threshold the model score must pass.

EXPANSION

Expansion: relative volatility or the current H1 range has increased noticeably.

EXPANSION

WHAT THE DETECTOR LOOKS FOR

- ATR above its local norm
- Or the current H1 range has expanded significantly
- The market has moved beyond its usual movement scale

WHAT THIS MEANS FOR CONSENSUS

EXPANSION means the market is moving more than usual. Execution becomes especially sensitive to spread and actual price.

Model thresholds and execution filters therefore work together: a strong score must still be executable.

A regime is not itself a BUY/SELL command. It changes the context and the threshold the model score must pass.

TRANSITION

Transitional regime: the market does not fit cleanly into trend, flat or an extreme volatility state.

TRANSITION

WHAT THE DETECTOR LOOKS FOR

- Mixed directional features
- Efficiency and slope do not give a clean classification
- No compression / expansion conditions

WHAT THIS MEANS FOR CONSENSUS

TRANSITION is a normal working category, not an error. It is designed for ambiguous periods when the market is restructuring between states.

A separate threshold prevents these hours from being forced into UP, DOWN or FLAT behavior.

A regime is not itself a BUY/SELL command. It changes the context and the threshold the model score must pass.

From signal to real order

After the Decision Engine comes the second layer: checking whether the signal can be safely executed with the current broker.

1 POSITION

There is no existing open position on the symbol.

2 DAILY CAP

The limit of 3 entries per UTC day has not been exceeded.

3 SPREAD

Ask-Bid is within the allowed limit relative to ATR.

4 STOPS

Rounded SL/TP levels satisfy STOP_LEVEL / tick size requirements.

5 VOLUME

Lot size satisfies broker min/max/step and directional volume limits.

6 MARGIN

Auto Risk is additionally limited by Maximum Margin Use.

If the broker does not allow the validated SL/TP to be placed exactly, v1.65 does not widen the stop just to open a trade. The borderline trade is skipped.

TP = SL = 1.0 ATR + Time Exit 12h

The system does not buy a high Win Rate with a huge Stop Loss. The base trade geometry is symmetrical.

1.0 ATR

STOP LOSS

Distance is calculated from the signal H1 ATR

1.0 ATR

TAKE PROFIT

The same distance in the opposite direction

12h

TIME EXIT

If TP/SL are not reached - close by time

1 POSITION

A maximum of one BTCUSD position is maintained at a time.

NO GRID

No grids or averaging against the move.

STOP ALWAYS

Every open trade has a pre-calculated Stop Loss.

With Time Exit, actual R can finish between -1R and +1R. The closed Trade Card therefore shows the real result, not only TP/SL type.

Auto Risk or Fixed Lot

The user chooses how volume is calculated. The signal and SL/TP do not change.

AUTO RISK - default 1%

The EA takes Equity, the actual monetary value of the Stop Loss for 1.0 lot, and calculates volume for the selected risk percentage.

The lot is then normalized to the broker specification.

FIXED LOT - default 0.01

Volume is set directly. Percentage risk changes with deposit size, BTCUSD contract size and Stop Loss distance.

85%

MAX MARGIN USE

If the calculated volume requires too much margin, it is reduced

0.01

FIXED LOT DEFAULT

Minimum starting example; the broker defines the actual minimum lot

1.00%

AUTO RISK DEFAULT

Percentage of Equity at the planned SL

With low leverage, margin often becomes the limiting factor rather than the risk formula. Always check Calculated Lot and Current Load on the panel.

Recovery - one step only

Recovery increases volume after a losing trade, but never escalates to x4 / x8 / x16.



DEFAULT

Enable Recovery = TRUE, multiplier = 2.0. The function can be disabled in Inputs.

WHAT DOES NOT CHANGE

SL/TP, signal score and entry logic remain the same. Only lot calculation changes.

Spread is measured relative to ATR

For BTCUSD, absolute spread says little without the scale of current volatility.

LIVE / REAL-TIME

Spread Protection is always active when enabled.

Default: Maximum Spread = 10% of ATR.
If Ask-Bid is too large relative to ATR, the entry is skipped.

STRATEGY TESTER

Before 2026, the filter intentionally does not reject signals so the long historical test preserves the original research behavior.

From 2026 onward, the filter works normally.

Important: 'filter disabled' on older history does not mean 'spread disappeared'. With real Bid/Ask ticks, historical spread still affects execution price and trade outcome.

- Current Spread and Max Spread (ATR) are visible on the panel.
- Spread is not an ML feature - it belongs to the execution layer.

GMT / DST - required setting

The models were trained on a common UTC grid. A wrong server offset changes H1/M15 candles and can produce different signals.

+2

GMT OFFSET DEFAULT

Standard server offset in winter

TRUE

DST DEFAULT

An additional +1h is applied automatically in summer

UTC

MODEL GRID

Internal analysis is built after time normalization

EXAMPLE: GMT+2 / GMT+3

Broker GMT Offset = 2
DST = TRUE
UTC+2 in winter, UTC+3 in summer under the European DST transition.

EXAMPLE: GMT+0 ALL YEAR

Broker GMT Offset = 0
DST = FALSE
Some broker servers use this type of schedule.

If you do not know the server time, compare Server Time in the terminal with UTC or ask your broker. This is one of the most important settings before LIVE trading.

What can be changed in version 1.65

Strategic thresholds and model parameters are locked. The user controls execution, risk, time and interface settings.

MONEY MANAGEMENT

Risk Mode • Risk % 1.00 • Fixed Lot 0.01 • Max Margin 85% • Recovery ON • x2.0

TRADE EXECUTION

Slippage price 1.00 • Magic 26092918 • BUY ON • SELL ON

BROKER TIME

GMT Offset +2 • DST TRUE

SPREAD PROTECTION

Maximum Spread = 10% of ATR

INTERFACE

Panel ON • Animation ON • Risk switch ON • Size AUTO • X=20 • Y=45 • Trade Cards ON • Premium Theme ON

TP = SL = 1.0 ATR, Time Exit = 12h, daily cap = 3 and model thresholds in v1.65 are part of the internal validated logic.

Main panel - system state on one screen

The panel displays values already computed by the trading core.



01 MARKET REGIME
current market regime

02 5 MODEL ENGINE
activity of five models

03 SYSTEM STATUS
READY / WAIT / SCAN / position state

04 H1 CYCLE
time until the next H1 analysis

05 CONSENSUS
final decision / analysis stage

06 MARKET DIRECTION
BUY vs SELL dynamics

07 RISK & LOAD
risk mode, lot and margin load

08 EXECUTION RULES
TP/SL, Time Exit, limits

09 FILTERS & PERMISSION
BUY/SELL, spread, Entry Allowed

10 POSITION
current position

11 ACCOUNT INFO
balance / equity / margin

12 SYSTEM FEED
live event log

Top of the panel: market, models and H1 cycle

The most dynamic part of the interface - it shows what the Decision Engine is doing right now.



MARKET REGIME

Highlights one of 6 regimes: UP / DOWN / FLAT / COMPRESSION / EXPANSION / TRANSITION.

5 MODEL ENGINE

D LONG, D SHORT, U LONG, U SHORT and SELL META. Percentages show current model scores / analysis states.

H1 CYCLE + CONSENSUS

Countdown shows time until the next H1 cycle. The central status displays SCAN / WAIT / SIGNAL / READY.

Lower panel: risk, filters and account state

Execution parameters are collected here - helping you understand why an entry is currently allowed or blocked.



RISK & LOAD

AUTO RISK / FIXED LOT, risk per trade, calculated lot, Maximum Margin Use and Current Load.

EXECUTION RULES

Take Profit, Stop Loss, Time Exit, Max 1 Position and Max Entries / Day.

FILTERS & PERMISSION

BUY/SELL permissions, Spread Filter, Max Spread (ATR), Current Spread and final ENTRY ALLOWED state.

ENTRY ALLOWED = OFF does not necessarily mean an error. The system may be waiting for history, a signal, spread, margin or a free position slot.

POSITION, ACCOUNT INFO and SYSTEM FEED

The lower part of the panel monitors the actual trading and account state rather than the models.



POSITION

Shows position availability, direction, lot, levels and current P/L. If there is no position, the block remains calm.

ACCOUNT INFO

Balance, Equity, Free Margin and Margin Level update in real time.

SYSTEM FEED

A short log of initialization, risk mode, completed analysis, WAIT, SIGNAL, Recovery and other events.

Closed trades remain on the chart

The Market build keeps the last three TP/SL cards. The Entry card is intentionally disabled so it does not cover current price action.



PROFIT / LOSS

Color and title immediately show the closing result.

ENTRY / CLOSE / LOT

The card shows actual parameters of the completed position.

DURATION / R-MULTI

Duration and actual result in R are visible.

Premium Chart Theme - dark background, cyan bullish candles and orange bearish candles. The interface adapts automatically to DPI and window size.

What broker-neutral means in practice

It is a portability architecture, not a promise of identical trades at every broker.

PRICE-ONLY CORE

ML features are built from H1/M15 price data.
Spread and tick volume are not part of the trained feature matrix.

UTC NORMALIZATION

Server Time is converted to UTC through GMT/DST so the models see consistent hourly boundaries.

BROKER EXECUTION

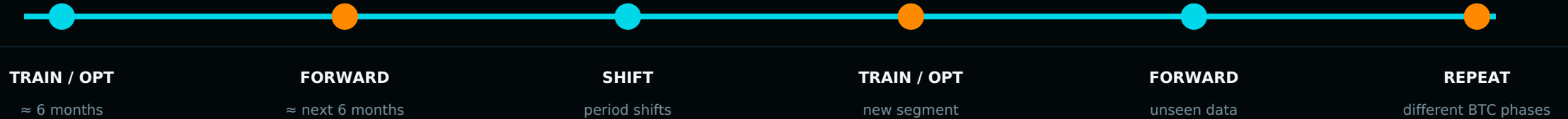
Tick size, digits, volume step, max lot, margin, STOP_LEVEL and spread are read from the current symbol specification.

Broker-neutral does NOT mean identical quotes, spread, slippage or 100% identical results. Before LIVE trading, always run Strategy Tester on your broker's history.

- BTCUSD, BTCUSD.m, BTCUSD.a, BTCUSD.pro and other suffixes are supported - the EA works with the current chart symbol.
- ECN / RAW / Razor or a similar account type is preferable because of BTCUSD execution costs.

How the models were trained and validated

The main public research base is real Dukascopy BTCUSD Bid/Ask ticks starting in May 2017.



WHY FORWARD

To evaluate not only the segment where the model was tuned, but also the following period it never saw during training.

WHY REAL BID / ASK

So spread and the actual execution side remain inside the test, instead of building results on simplified bid-only replay.

Historical and forward results describe past algorithm behavior and do not guarantee future profitability.

Long test across all verified tick history

Public product test: Dukascopy real Bid / Ask ticks, MAY 2017 - OCTOBER 2026, default settings.

492,849,560

REAL TICKS

Dukascopy long test

1,532

TRADES

Dukascopy long test

96.93%

WIN RATE

Dukascopy long test

64.01

PROFIT FACTOR

Dukascopy long test

5.14%

EQUITY DD

Dukascopy long test

DEFAULT SETTINGS

AUTO RISK 1% • TP = SL $\approx$ 1:1 • max 1 position • max 3 entries/day.

HOW TO READ THE RESULT

A high historical Win Rate is not a promise of future performance. More importantly, the system does not use a huge SL just to inflate the win percentage.

The earliest date accepted by the EA in Strategy Tester is 07.05.2017 - the start of the verified Dukascopy BTCUSD tick history.

How to test BTCUSD Consensus correctly

To understand the system, one Visual Mode run is more useful than ten static screenshots.

SYMBOL

your broker's BTCUSD

TIMEFRAME

H1

START DATE

07.05.2017 or later

MODE

Every tick based on real ticks - if provided by the broker

GMT / DST

match the server time exactly

INPUTS

use defaults for the first comparison

VISUAL MODE

recommended for the panel

HISTORY

allow the tester to load M1/M15/H1 history

Do not compare different brokers as 'the same test'. Differences in ticks, spread, contract specification and execution can change some entries and outcomes.

If something looks wrong

Most issues come down to history, broker time, trading permissions, margin or spread.

NO TRADES

Check H1, history loading, GMT/DST, Algo Trading, BUY/SELL permissions and spread. WAIT can last a long time.

DIFFERENT SIGNALS THAN IN THE TEST

Check GMT/DST and the broker. Different candles = different 61 features.

LOT SMALLER THAN EXPECTED

Auto Risk can be limited by Maximum Margin Use, broker min/max lot or volume limits.

ENTRY ALLOWED = OFF

Check Filters & Permission, Position, Current Load and System Feed.

PANEL NOT DISPLAYED

Show Main Panel = TRUE. In non-visual tester mode the UI is not created - this is normal.

TRADE SKIPPED

If spread or the exact SL/TP does not satisfy broker restrictions, the EA does not weaken protection just to open a trade.

Before live trading

A short checklist to run after moving to a new broker, VPS or account.

- ✓ BTCUSD is open on H1.
- ✓ Spread Protection remains enabled.
- ✓ H1/M15 history is loaded and the panel shows no data problems.
- ✓ BUY / SELL are enabled according to your plan.
- ✓ Broker GMT Offset and DST match server time.
- ✓ Algo Trading is enabled in the terminal and EA properties.
- ✓ AUTO RISK or FIXED LOT has been chosen deliberately.
- ✓ VPS synchronization is complete and Journal has been checked.
- ✓ Maximum Margin Use is appropriate for your leverage.
- ✓ A test has been run on your broker's own history before LIVE.

If any item is uncertain, stay in the tester or demo until it is resolved. Automation does not replace control of the execution environment.

BTCUSD CONSENSUS

UNDERSTAND FIRST. THEN TRADE.

The strength of BTCUSD Consensus is not one 'magic' signal, but a coordinated chain: price structure → 61 features → 5 models → regime → Consensus → execution gates → protected trade.

OFFICIAL PAGE

mq15.com/en/market/product/199020

Guide version: EN • product v1.65 • October 2026

Historical results do not guarantee future profitability. Trading involves risk.

