CoTrader Risk OS · owner's guide (v2.5)

What it is: a risk operating system for MetaTrader 5. It does **not** trade by itself. It watches every position on your account (your manual trades and any other EA), enforces your rules before your prop firm or your emotions do, and keeps you inside the limits even after a restart.

Free on demo accounts. Real accounts need your CoTrader licence (the file you received is locked to your account numbers).

Honest limit: MetaTrader can't stop you clicking Buy. When a trade breaks a rule, Risk OS closes it within about a second and tells you why. Keep MT5 running; a VPS is best.

Install (5 minutes)

1. MT5 → **File** → **Open Data Folder** → **MQL5** → **Experts**. Copy `CoTraderRiskOS.ex5` there.
2. Restart MT5. Drag **CoTraderRiskOS** onto **one** chart (it guards every symbol from that chart).
3. **Common** tab: tick **Allow Algo Trading**. **Inputs** tab: pick your **Firm preset**, type your **account starting size**. OK.
4. Turn on **Algo Trading** in the toolbar (green). The panel shows ● **Protected** (green).
5. Optional, phone alerts: MT5 → Tools → Options → Notifications → your MetaQuotes ID from the MT5 phone app.
6. Optional, Telegram: see the Telegram section.

Attach it to **one chart only**.

What it protects

Account rules

Rule	What happens
Daily loss lock	At your safety % of the firm's daily limit (default 80%: locks at 4% when the limit is 5%) everything closes and new trades are blocked until the firm's next day. 4 ways to measure the day: day-start balance, higher of balance/equity, day-start equity, or highest equity today.
Max loss lock	Same at the max-loss line. Static, trailing balance, or trailing equity. Trailing stops once its floor reaches your starting balance (like most firms). Stays locked until you reset it.
Weekly / monthly loss lock	Optional: a loss limit for the whole week and/or month.
Early warnings	Alerts at 50% and 80% of today's loss room.
Profit target lock	Optional: once the phase target is hit, everything closes so one bad trade can't undo the pass.
Green-day lock	Optional: lock the day at +X% so you keep a good day.
Consistency cap	Optional: if your firm has a consistency rule (best day max X% of the target), the day locks before you break it.

Trade rules

Rule	What happens
Max risk per trade	Every position's risk (stop distance × lots) is checked. Too big → the stop is tightened to your max, or the trade is closed if it can't be.
Max share of today's room	A new trade may risk at most X% of the money left before the daily lock (default 50%).
Worst-case guard	Before a new trade is allowed, Risk OS adds up what you'd lose if **every** open stop and pending order hit at once. If that would break a limit, the new trade is refused. This is what stops slippage and stacked trades from blowing the daily limit.
Stop loss required	A trade with no stop gets one at your max risk within a second (or is closed).
Break-even at R	Optional: moves the stop to entry once the trade is X R in profit.
Partial take-profit	Optional: closes X% of the position once it is Y R in profit (once per trade).
Trailing stop	Optional: from X R in profit, the stop follows the price, Y R behind it.
Lot / open / per-day caps	Max lots per trade, max open positions, max new trades per day.
Allowed symbols	Optional list; anything else is closed.
Spread guard	No new trades when the spread is wider than your limit.

What happens when a rule is hit (your choice)

Setting	Options
Loss locks (daily, weekly, monthly)	Close everything and block · Block new trades only (open trades keep their stops) · Alert only
Profit locks (target, green day, consistency)	Same three options
Trade rules (risk, lots, news, spread, discipline…)	Close the rule-breaking trade · Alert only

The **max loss lock always closes and blocks**: it is the line that ends an account.

Discipline rules

Rule	What happens
Cool-down	After N losses in a row, no new trades for N minutes.
Re-entry lock	No new trade on a symbol for N minutes after a loss on it (the revenge trade).
No size-up after a loss	After a loss, the next trade can't be bigger than the losing one (× your factor).
Tighten-only mode	During a day, these settings can only be made stricter: safety %, max risk per trade, max share of today's room, max lots, max open positions, max trades per day. Loosening any of them waits until tomorrow.

Closes made by Risk OS never count as your losses for the cool-down or revenge rules.

Time rules

Rule	What happens
News lock	No new trades from N minutes before to N minutes after high-impact news **for the currencies of the symbol you trade** (gold → USD, EURUSD → EUR + USD, indices → their currency). Pending orders on affected symbols are deleted before the event. Optional: also close open trades.
News feed down	If MT5's news calendar can't be read, new trades are blocked (fail-closed) and the panel says so. Turn this off only if your broker has no calendar.
Trading hours	Only allow new trades between your hours.
Weekend guard	No new trades in the last N hours before the Friday close; optional Friday close of everything.

The order panel (one click, sized for you)

Under the status panel:

- **risk %**: how much of the balance this trade may risk.
- **SL pts**: stop distance in points.
- **TP R**: target in R (2 = twice the risk; 0 = no target).

The panel shows the **lot it will use** and whether the trade is allowed. **BUY / SELL** send the order with the stop and target attached. If a rule would be broken, the order is refused **before** it is sent and you see why.

LINES puts a draggable stop line on the chart: drag it and the lot recalculates. **PENDING** adds an entry line: BUY/SELL then place a limit or stop order at that line instead of a market order (the side must match the stop line).

FLATTEN closes everything and locks the day. **LOCK DAY** blocks new trades until tomorrow (open trades keep their stops).

Telegram (optional, recommended)

1. In Telegram, message **@BotFather** → `/newbot` → copy the **token**.
2. Message your new bot once, then open `https://api.telegram.org/bot<token>/getUpdates` in a browser and copy your **chat id** (the number after `"chat":{"id":`).
3. MT5 → Tools → Options → Expert Advisors → tick **Allow WebRequest** → add `https://api.telegram.org`.
4. In Risk OS inputs: paste the token, your chat id, and choose a **PIN** (4+ characters).

You get every lock, warning and closed trade on your phone. Commands (only from your chat):

- `/status`: equity, today, room left, worst case, trades.
- `/flatten <pin>`: close everything and lock the day.
- `/lockday <pin>`: no new trades until tomorrow (open trades keep their stops).
- `/report`: writes the audit report on the terminal.

Commands can only make things **safer**. Nothing can unlock from Telegram. Messages are queued and sent one per second, so Telegram never slows the protection down. Never share your bot token.

Panel

- **Status card**: Protected (green) or Locked (red, with the reason), today's P&L and the money left before the daily lock.
- **Limits**: three bars that go green → yellow → red: daily loss room used, max loss room used, and what you'd lose if every stop hit now against your room.
- **Tiles**: trades today (and your cap), max risk per trade, progress to the profit target.
- **News**: the event window when one is active, or "News feed down" if the calendar can't be read.

Logs: `MQL5/Files/CoTraderRiskOS_log.csv` (every rule hit) and `CoTraderRiskOS_journal.csv` (every closed trade with R).

Audit report (for payout reviews)

Click **Audit report** on the panel (or send `/report` on Telegram, or set the input **Save a picture of the chart with the panel + the audit report** to true for support). Risk OS writes `MQL5/Files/CoTraderRiskOS_report_<login>.html`: per day, the rule alerts, close-alls, closed trades, P/L and total R, built from its own logs. Useful if a firm questions a breach, and for your weekly review.

Locks can't be lost

Every saved value (day start, locks, peak, trades) is also written to `MQL5/Files/CoTraderRiskOS_state_<login>.csv` with a checksum. If MT5's global variables are lost (reinstall, cleared, new VPS with your MQL5 folder copied), Risk OS restores them from that file. A damaged file is ignored.

One copy per account

Risk OS refuses to start on a second chart of the same account (two copies would double-close and double-count).

Minimise the panel

Click **–** to minimise the panel to one status line, **+** to open it again.

Reset after a max-loss lock

The lock is saved on purpose so a restart can't bypass it. To clear it: **Tools** → **Global Variables (F3)** → delete `CoTraderRiskOS_<login>_MaxLock` **and** the file `MQL5/Files/CoTraderRiskOS_state_<login>.csv`, then remove and re-attach Risk OS. **New challenge or funded account on a NEW login?** Request your new licence file at **cotrader.pro/licence** (same end date, up to 2 moves every 30 days).

Starting a new challenge on the same login? Set the input **"Starting a NEW challenge"** to true once, press OK (all saved locks and objectives are cleared), then set it back to false.

Check it works (2 minutes, demo account)

1. Open a trade with **no stop** → a stop appears within a second.
2. Open a trade with a huge stop → it is tightened to your max risk.
3. Use the panel with a tiny SL and 50% risk → refused with the reason.

Presets reflect public firm rules at the time of release. **Check your own firm's current rules**; Custom mode lets you type exact numbers.

Software and education only. Not financial advice. No result is guaranteed, and an account can still be lost. Risk OS can't act while MT5 is closed.

Open-source risk tools that informed the design: EarnForex Account Protector and PositionSizer (Apache-2.0), ftmo-risk-control (MIT). No code was copied.

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