



TRADERSUITE · PROFESSIONAL INDICATOR SERIES

Range Band Pro Confluence Pro ML RSI Pro

The complete user guide to the TraderSuite reversal system for NinjaTrader 8. An adaptive range envelope finds where price is stretched and signals only on rejection. A confluence engine measures whether that rejection has real participation, momentum and higher-timeframe agreement behind it. An analog engine asks what followed the last time momentum looked like this — and hands back a conviction-scaled trail to manage the trade.

One decides *when and where*. One decides *whether, and how much*. One decides *how long you stay*.

Band v1.2.0

ML RSI v1.0.1

Confluence v1.0.2

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How to read this guide

Part I is the Range Band alone. **Part II** is the Confluence panel. **Part III** is the one to keep beside your chart — how the two combine into a single decision. **Part IV** is reference. Running both already? Start at Section 33. Every figure is rendered from the indicators' own engines.

What this indicator does

Range Band Pro answers one question all day: is price stretched, and does that stretch mean anything? It draws an envelope that adapts to the market's own behaviour rather than to a fixed point value, marks the extremes of that envelope as overbought and oversold territory, and prints a signal only when price actually *rejects* one of those extremes — never merely for touching it.



The complete picture: adaptive bands, OB/OS zones with live occupancy highlighting, the midline, reversal signals (the ringed one is divergence-backed), unfilled FVG boxes, liquidity-range boxes and the auto-spaced level grid.

The envelope

A double-EMA basis with bands set by the market's own average deviation from that basis — so the band widens in expansion and tightens in compression without you touching a setting. Roughly 97% of price action stays inside it.

The zones

The inner 35% of each band is an OB / OS strip. Price inside the strip is the alert state; price *closing back out* of it is the event. The strip brightens while occupied so the state is readable at a glance.

The quality engine

Three independent gates decide which zone exits deserve a triangle: a basis trend state, a one-signal-per-rotation lock, and an RSI divergence grade. This is what separates v1.1 from a plain band indicator.

The location tools

Fair Value Gaps, liquidity-range boxes and a nice-number level grid — context for where a move is likely to pause, so you have a framework even when no signal is allowed to fire.

The one sentence that matters

A band touch is **not** a trade. A close back out of the zone, in a regime that permits it, is. Everything in this guide is an elaboration of that sentence.

Installing it

Range Band Pro is a single-file NinjaScript indicator that draws on the price panel. There is no two-instance setup and nothing to configure beyond your license key.

- 1 **Copy the file.** Place `TS_Range_Band_Pro.cs` into `Documents\NinjaTrader 8\bin\Custom\Indicators\`.
- 2 **If you are replacing an older version, delete the old file first.** NinjaTrader appends a hidden generated-code region to the bottom of every indicator file; overwriting in place can leave a stale region behind and produce compile errors that have nothing to do with the new code.
- 3 **Compile.** Open the NinjaScript Editor and press F5. A clean compile is silent.
- 4 **Add it to a chart.** Right-click → Indicators → **TraderSuite** → `TS_Range_Band_Pro`. Leave the Panel dropdown on the price panel — the indicator is an overlay.
- 5 **Enter your license key** under `0A. License`. The panel title bar shows the installed version, and the License Status rows confirm activation.

Warm-up — why the first few hundred bars are blank

The basis is a double EMA of length 50 and the deviation unit is smoothed over 100 bars, so the engine needs roughly **200 bars** of history before it will draw anything or evaluate a single signal. On a 2-minute chart that is under a session; on a daily chart it is most of a year. If your chart looks empty, load more history rather than changing settings.

Recommended first chart

NQ or ES, 2–5 minute, at least 3 days of history loaded, all defaults untouched. Watch it for one full session before changing anything — the defaults are calibrated, and most "it isn't signalling" reports are the filters doing their job.

Works on

Any instrument and any timeframe, including tick and volume bars. The engine is scale-free — it measures everything in units of the instrument's own deviation, so nothing needs re-tuning when you move from NQ to CL to a stock.

How the band is built

Three steps, and each one exists for a reason. Knowing them tells you exactly what the band can and cannot do.

1 • The basis — a double EMA, smooth enough to be a real centre of gravity



2 • The deviation unit — how far price normally strays from the basis



3 • The bands — basis $\pm$ (deviation $\times 2.5$), and the 35% OB/OS strips inside them



The same window at each stage: raw HL2 and the double-EMA basis, the deviation unit that measures how far price normally strays, and the finished envelope.

1 • The basis is a double EMA, not a single one

A single moving average of length 50 still wiggles with every swing, and a band built on a wiggling centre produces false extremes. Running the EMA twice removes that: the basis becomes a genuinely smooth curve that only bends when the market's centre of gravity actually moves. The cost is lag — the basis is slow to turn — and that lag is precisely why the trend-state filter in Section 7 exists.

2 • The width is set by deviation, not by ATR

The offset is $\text{EMA}(|\text{price} - \text{basis}|, 100) \times 2.5$ — the market's own average distance from its centre, smoothed. This is a deliberate choice over an ATR-based band. ATR measures bar-to-bar range, which says nothing about how far price wanders from a *lagging* basis; a band built that way sits too tight during trends and price lives in the zones. Measuring the actual deviation self-corrects for the basis's own lag, which is why the zones stay meaningful in a trend.

3 • The zones are a fraction of that offset

The inner edge of each zone sits 35% of the way back from the band toward the basis. Because the offset breathes with volatility, so does the zone — it is always the same *proportion* of the current envelope, never a fixed number of points.

What this buys you

Roughly **97% containment** and **10–13% zone occupancy** across instruments and timeframes, with no per-market tuning. A band that price is inside 97% of the time makes the other 3% worth looking at; a band price sits in half the time is decoration.

Anatomy — everything on your chart



- ① **Upper band** — the stretch limit above the basis. Price above it is a genuine outlier.
- ② **Midline (basis)** — the centre of gravity, and the default first target for every reversal trade.
- ③ **Lower band** — the mirror image below.
- ④ **OB zone** — the inner 35% strip below the upper band. Brightens while price is inside it.
- ⑤ **OS zone** — the mirror strip above the lower band.
- ⑥ **▲ Bull reversal** — a bar closed back *above* the OS zone edge. The white ring means RSI divergence backs it.
- ⑦ **▼ Bear reversal** — a bar closed back *below* the OB zone edge.
- **Price tags** — live UPPER / MID / LOWER values at the right edge, so you can place orders without a crosshair.

Reading it in one glance

Where is price relative to the zones (stretched or neutral)? Which way is the band sloping (regime)? Is there an unfilled gap or a level between price and the midline (obstacle)? Those three questions, in that order, are the whole read.

The dotted lines inside each band are the zone inner edges — the exact levels a close must cross back over to trigger a signal. They are drawn faintly on purpose; they are reference geometry, not levels to trade in their own right.

The OB / OS zones

The bands tell you where the edge is. The zones tell you when price is *at* it — and the brightening is a live state you can read without looking at a single number.



The strips sit inside the bands. The brighter shading marks the bars where price is actually occupying the zone — the same state the panel reports as OB ZONE or OS ZONE.

Occupied is a warning, not a signal

Price entering a zone means the move is stretched. That is genuinely useful — it is the moment to stop adding to a position, to tighten a trail, or to start watching for a turn. It is **not** an entry, because a stretched market can stay stretched for a very long time, and in a strong trend it routinely does.

Zone entry fires an alert, not a triangle

Entering a zone raises an informational alert and updates the panel's Zone row. Only the exit prints a marker.

Why 35%?

Deep enough that reaching it requires a real excursion, shallow enough that price does not have to tag the band exactly. At the default 2.5 multiplier this puts zone occupancy around 10–13% of bars — frequent enough to matter, rare enough to notice.

Widen or narrow it

Zone Fraction controls the depth. Lower (0.20–0.25) demands a near-band touch and gives you fewer, more extreme setups. Higher (0.45–0.50) fires earlier and more often. Change this before you change the Band Multiplier — it is the gentler adjustment.

The trap

In a strong trend price can ride inside a zone for dozens of bars. Every one of those bars looks "extreme" and none of them is a reversal. That single failure mode is what the entire Section 7–11 filter stack exists to solve.

What a signal actually is

A signal is a **rejection**, not a touch. Three conditions must line up on a closed bar, and then the quality gates get their say.



A bear reversal, step by step: the excursion into the zone (gold band = the 5-bar lookback), the close back out that triggers it, and the ring that grades it.

```
// the bear signal, exactly as the indicator evaluates it
bool bear = touchedOb          // any of the last 5 bars reached into the OB zone
    && Close[0] < obInner      // THIS bar closes back below the zone's inner edge
    && Close[1] >= obInner    // and the previous bar was still inside – a genuine crossing
    && barsSinceLastBear >= 5 // cooldown
    && trendOK && armed && volumeOK; // the quality gates – Sections 7–11
```

Closed bars only

Every decision is made on a completed bar. A signal that prints will never disappear, and one that did not print will never appear later. There is no repainting anywhere in this indicator.

The 5-bar lookback

The touch does not have to be on the signal bar. Price can spike into the zone and take a few bars to close back out — the excursion still counts for 5 bars, which is what makes wick-driven reversals catchable.

The most common misreading

"Price is deep in the zone, why no arrow?" Because the arrow is the **exit**. While price is still inside the zone the setup is forming, not triggered. If price never closes back out — it just keeps going — there was never a reversal to trade, and the absence of the arrow was correct.

Trend state — the regime selector

One number on the panel changes which playbook applies. The engine measures how fast the basis is moving, in units of the market's own deviation, and reduces it to three states.



```
slopeNorm = (basis - basis[10]) / deviation // scale-free: works on any instrument
▲ RISING   if slopeNorm > +0.20
◆ FLAT     if -0.20 ≤ slopeNorm ≤ +0.20
▼ FALLING  if slopeNorm < -0.20
```

Panel reads	What it means	Your playbook
◆ FLAT	The basis is not going anywhere. Price is rotating around a stable centre.	Mean-reversion regime. Fade both zones, target the midline. This is the indicator's home ground — Technique 1.
▲ RISING	The centre of gravity is climbing. Upper-zone visits are strength, not exhaustion.	Trend regime. No ▼ allowed. Treat the band as a channel and buy pullbacks to the midline — Technique 2.
▼ FALLING	The centre is dropping. Lower-zone visits are momentum.	Trend regime. No ▲ allowed, unless divergence overrides it — Technique 3.

Why it is normalised by deviation

A 10-point move over 10 bars is a violent trend on ES and noise on BTC. Dividing the slope by the instrument's own deviation makes 0.20 mean the same thing everywhere — which is why one default threshold works across every market you will put this on.

The Trend Filter — what it removes

This is the single most valuable thing the indicator does, and its value is invisible: it is measured in the trades you never took.

Trend Filter OFF · One Signal Per Rotation OFF — every zone exit prints



Defaults ON — the falling basis blocks every counter-trend ▲



One falling stretch, two configurations. Above: every zone exit prints, producing a ladder of green arrows all the way down — each one a knife-catch. Below: the defaults. The falling basis blocks every counter-trend ▲.

In a sustained slide, price repeatedly pushes into the lower zone and bounces a little. Each bounce is a valid zone exit and, without the filter, each one prints a buy arrow. They arrive one after another, each looks reasonable in isolation, and collectively they are the fastest way to lose money with a band indicator. The Trend Filter simply refuses to print them: **no ▲ while the basis is FALLING, no ▼ while it is RISING.**

When it is working, you see nothing

A session that reads ▼ FALLING with Session ▲/▼: 0/0 is not a broken indicator. It is the filter telling you this session had no trade it was willing to endorse. Sitting out is a position.

What it costs you

Slope lags. The sharpest V-reversals happen while the basis is still steeply sloped, so a pure slope filter blocks some genuinely good turns. Section 11 is the answer to exactly that, and it is on by default.

Seeing the difference on your own chart

Duplicate a chart, and on the copy set **Trend Filter** to false. Every arrow that appears on the copy but not on the original is a trade the filter is removing. Do this once on a trending session and you will not need convincing again.

One Signal Per Rotation

The second noise filter, and it solves a different problem: the same side firing again and again while price grinds along one edge of the band.

One Signal Per Rotation OFF — the same side keeps re-firing while price rides the zone



ON (default) — one signal, then that side waits for a close back through the midline



Above: without the lock, one stretch produces several same-side signals as price repeatedly dips in and out of the zone. Below: the default — the first one fires, and that side is disarmed until price closes back through the midline.

The rule

When a ▲ fires, the bull side is **disarmed**. It re-arms only when a bar closes back above the midline — that is, when a full rotation of the range has completed. The bear side works in mirror.

The effect is that the indicator gives you **one opinion per swing**, not a running commentary. If the first signal was wrong, you take the loss once rather than three times in the same move.

Why the midline is the reset

Crossing the basis is the definition of a completed rotation — price has gone from one side of the market's centre of gravity to the other. Any weaker reset (a fixed bar count, a partial retrace) lets the ladder back in.

Turning it off

Only useful for research, or if you deliberately scale into a zone across multiple entries. For discretionary trading, leave it on.

Combined effect of Sections 8 + 9

On a 10-seed synthetic study of 8,000 bars each, the two filters together took the raw signal count from **854 to 221** — roughly a 74% reduction — while leaving every FLAT-regime rotation signal intact. They remove signals from the situations where fading is structurally wrong, not at random.

RSI divergence & the STRONG grade

Every signal is graded. The grade comes from comparing this excursion into a zone with the previous one — in price, and in RSI.



How it is measured

The engine tracks each *excursion* — the whole visit to a zone, not a single bar — and remembers the extreme price reached and the RSI value at that extreme. When the next excursion into the same zone goes further in price but not in RSI, that is divergence. The comparison expires after 150 bars, so it never links two events that have nothing to do with each other.

Grade	On the chart	Meaning
1 · normal	Plain triangle	A valid zone rejection that passed every gate. Tradeable, ordinary.
2 · STRONG	Triangle + white ring	Divergence-backed. The panel appends · STRONG and the alert says so. These are the priority reads — and in a trend regime, the only ones allowed at all.

Using it as a hard gate
Require RSI Divergence (default off) makes grade 2 the *only* thing that can print. That is a legitimate way to run the indicator if you want very few, very selective signals — expect roughly a quarter of the normal count.

Honest limitation
A first, single-leg plunge has no previous excursion to compare against, so it can never be graded STRONG. That is deliberate — a bottom with no reference is the least reliable kind — but it does mean some real turns arrive ungraded.

The divergence override (new in v1.1.1)

The Trend Filter has one real weakness: the basis slope lags, so the filter is at its strictest exactly when the best reversals happen. The override is the fix — and it is on by default.

Divergence Overrides Trend Filter = OFF — the falling basis blocks the turn entirely



ON (default) — the divergence-backed ▲ is allowed through, and is STRONG by construction



A falling regime with a divergence-backed turn. Above: with the override off, the trend filter blocks it entirely and nothing prints. Below: the default — the signal is allowed through, and is STRONG by construction.

```
// the trend gate, v1.1.1
bullAllowed = !trendFilter || trend >= 0 || (divergenceOverride && divergence0S);
```

The logic is narrow on purpose. A **plain** signal still needs FLAT or an aligned trend — the arrow ladder from Section 8 stays blocked. Only a signal that RSI divergence already vouched for is permitted to fire against the regime. Because of how the rule is written, **every counter-trend signal you will ever see is automatically a white-ring STRONG signal**.

What it recovers

On the same 10-seed study, the override let 32 additional signals through — **all 32 divergence-backed**, none plain. Total went 221 → 250, so roughly 71% of the noise reduction is retained while the V-reversals come back.

How to read one

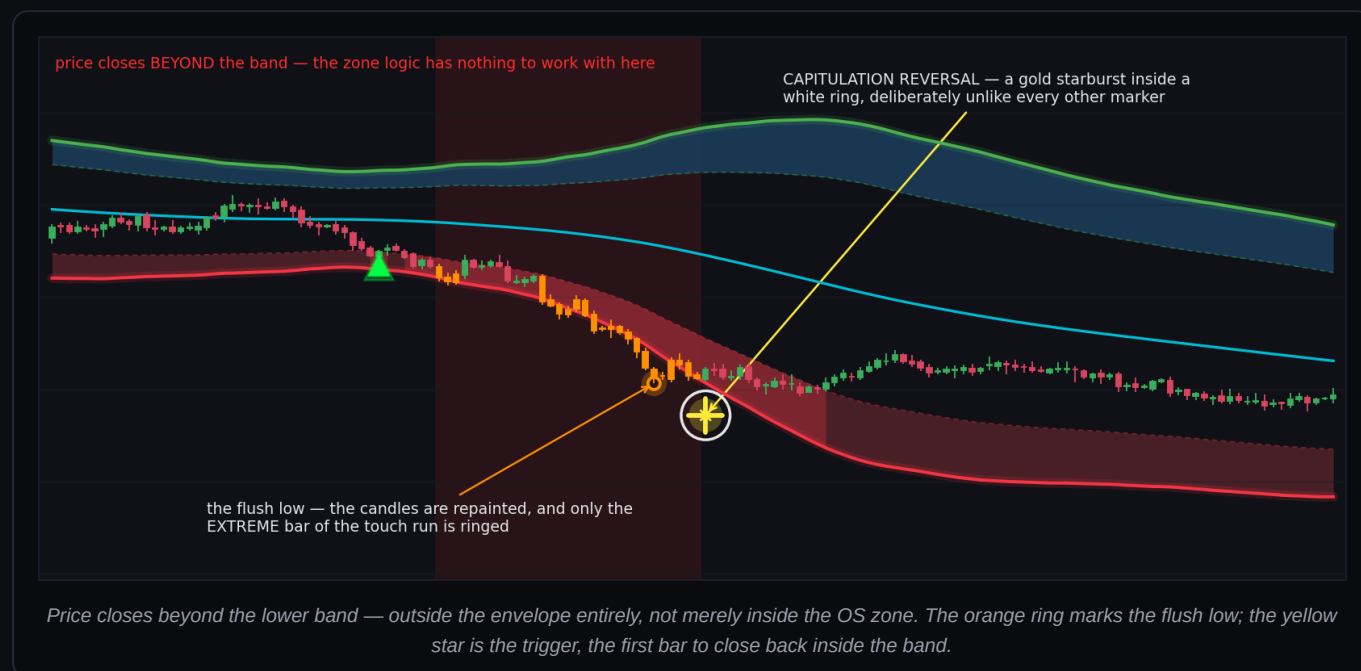
A ringed arrow against the Trend row is the indicator saying: *the regime says don't, but the momentum underneath has already turned*. It is the highest-information signal the tool produces — and also the highest-risk, because you are trading against the regime. Size accordingly.

If you want the old v1.1.0 behaviour

Set **Divergence Overrides Trend Filter** to false. The filter becomes absolute again: no counter-trend signal of any grade will print.

Capitulation reversals (new in v1.2.0)

There is one reversal the zone logic structurally cannot see, and it is the one that hurts most to miss: a violent single-leg flush that closes straight through the band and then snaps back. v1.2.0 adds a separate detector built only for it.



Why the normal signal cannot fire here

Three independent reasons, each of them the tool working exactly as designed:

- The reversal signal needs a close back out of the **zone**. In a flush, price is already past the band — there is no zone exit to detect, because price never stopped in the zone.
- The Trend Filter is blocking longs, correctly: the basis is falling steeply.
- The divergence override needs a **previous** oversold excursion to compare against. A first, single-leg plunge has no reference, so it can never be graded STRONG.

No amount of threshold tuning fixes that. It is a different setup and it needs different rules.

The four conditions

- 1 • **EXCEEDANCE** a bar in the last 10 closed BEYOND the band — outside the envelope
- 2 • **CLIMAX** at that extreme bar, $ATR(3) \geq 2.0 \times ATR(20)$ // range is expanding violently
- 3 • **VOLUME** at that extreme bar, $volume \geq 1.5 \times SMA(volume, 20)$
- 4 • **TRIGGER** this bar is the first to close back INSIDE the band

It deliberately bypasses two filters

The Trend Filter and the divergence requirement are both skipped for this signal type. Not an oversight — a capitulation is *defined* by a falling trend and has nothing to diverge against. Applying those gates would guarantee it never fires.

Calibrating it — and why you must

Read this before you trust a single signal

The default thresholds are guesses, and they are the only numbers in this entire guide that were not tested. Every other default was calibrated on synthetic data. This one could not be: the synthetic generator never produces an $\text{ATR}(3)/\text{ATR}(20)$ ratio above 1.44 even at the 99.9th percentile, because Gaussian noise has no capitulation events in it. Real flushes routinely reach 3–5×. The test fired once in 57,000 bars, which tells you about the test data and nothing about the rule.

So instead of shipping an invented number, v1.2.0 ships a **calibration readout**. Set the thresholds from what your own market actually does.

The procedure

- 1 Turn the full panel on — 0. `About → Compact Panel = false`. A **CAPITULATION CALIBRATION** section appears.
- 2 Watch two rows for a few sessions. `Climax now / max` is the live and session-peak $\text{ATR}(3)/\text{ATR}(20)$ ratio; `Volume now / max` is the same for volume. Note what the session maximum reaches on a day with a real flush versus a quiet day.
- 3 Set each threshold just under what a genuine flush produces and comfortably above a normal session's peak. On a fast index future the climax ratio on a real capitulation is usually well above 2; on a slow instrument it may barely exceed 1.6.
- 4 Sanity-check the frequency. These should be **rare** — a handful a month, not a handful a session. If you are getting several a day the thresholds are too low and you have turned a special case into noise.

How to trade it, if you take it at all

- 1 Half size at most. This is a counter-trend entry into a market that was just in freefall. It is the highest-variance signal the band produces.
- 2 Stop below the flush low — the ringed bar. If that low goes, the capitulation was a pause, not a bottom.
- 3 First target the band, not the midline. After a flush the band itself is far away and the midline is further still. Take the return into the envelope and reassess.
- 4 Check the confluence panel. An absorption diamond near the flush low is the strongest possible corroboration — two independent detectors agreeing that the low was defended.

The honest expectation

Nobody — including this guide — can tell you the hit rate of this signal, because it has not been measured on real data. Treat the first month as data collection: note every fire, note what happened, and decide for yourself whether it earns a place in the playbook.

Turning it off

`2B. Capitulation Reversal → Show Capitulation Reversals = false`. Nothing else in the indicator depends on it.

The marker

A gold starburst inside a white ring — four long spokes and four short ones on a translucent disc, offset below the flush low. Deliberately unlike the reversal triangles: you should never confuse a capitulation signal with an ordinary zone reversal, because they are traded differently.

Range Levels & liquidity ranges

Two location tools that work when no signal is allowed to fire — which, with the filters on, is most of the time.



Range Levels

Horizontal lines spaced at $\text{nice_number}(\text{band width} \times 0.6)$ — the spacing is derived from live volatility, then rounded to a clean number ($1 / 2 / 2.5 / 5 \times 10^n$) so you get round levels a human would actually watch: 100s on NQ, 5s on CL.

They are anchored to the midline, so the grid drifts with the market rather than sitting on stale absolute prices. Use them as profit targets and as the "is there something in the way?" check before taking a signal.

Liquidity ranges

Grey boxes over stretches where a 15-bar window compressed into $\leq 3 \times$ the smoothed ATR — a coil. Stops accumulate above and below a coil, which is why price so often expands violently out of one and then returns to test its edge.

Their **edges** are the useful part. A signal that fires right at the edge of an old range box has a structural reason to work; one that fires in open space has only the band behind it.

Combining them with a signal

The best confluence this indicator offers, in order: a **ringed signal**, firing at a **liquidity-range edge** or an **unfilled FVG**, with a **Range Level** sitting at the midline to target. When all three line up you have a defined entry, a structural stop and a measured target — without drawing a single line yourself.

Liquidity boxes persist as history (capped at 40) because an old coil's edges stay relevant long after the coil is gone. If you find them cluttering on very long charts, turn **Show Liquidity Ranges** off — nothing else depends on them.

Fair Value Gaps

A three-bar displacement gap — a price region that got skipped because one side was overwhelmed. Markets tend to come back and trade through them.

Without the lifecycle rule — every gap ever detected is still on the chart (v1.0.0 clutter)



v1.0.1+ — a gap is REMOVED the moment price trades back through it, or at Max Age bars



The lifecycle rule is the whole point. Above: every gap ever detected, still drawn — the chart becomes unreadable. Below: the shipped behaviour — a gap disappears the moment price trades back through it.

Detection

A bullish gap exists when the low of the current bar is above the high of the bar two back, and the span is at least $0.5 \times \text{ATR}$. Bearish is the mirror. The ATR minimum keeps out the micro-gaps that appear constantly on fast timeframes.

Removal

A gap is deleted — not faded, not truncated — when either: price trades through the **entire** gap (wicks count), or it reaches **Max Age** bars old (default 100). What remains on your chart is always and only the set of recent, still-unfilled gaps.

How to trade with them

An unfilled gap between price and your target is an **obstacle** — expect a pause there. An unfilled gap that price is retesting from the other side is an **entry area** — especially in a trend regime where no zone signal will fire.

Tuning

Too many boxes: raise **Min Gap Size** to 0.8–1.0 so only real displacement registers. Too much history: lower **Max Age** to 30–50 for a fast intraday chart.

Not a signal

FVGs never trigger a triangle and never gate one. They are pure context.

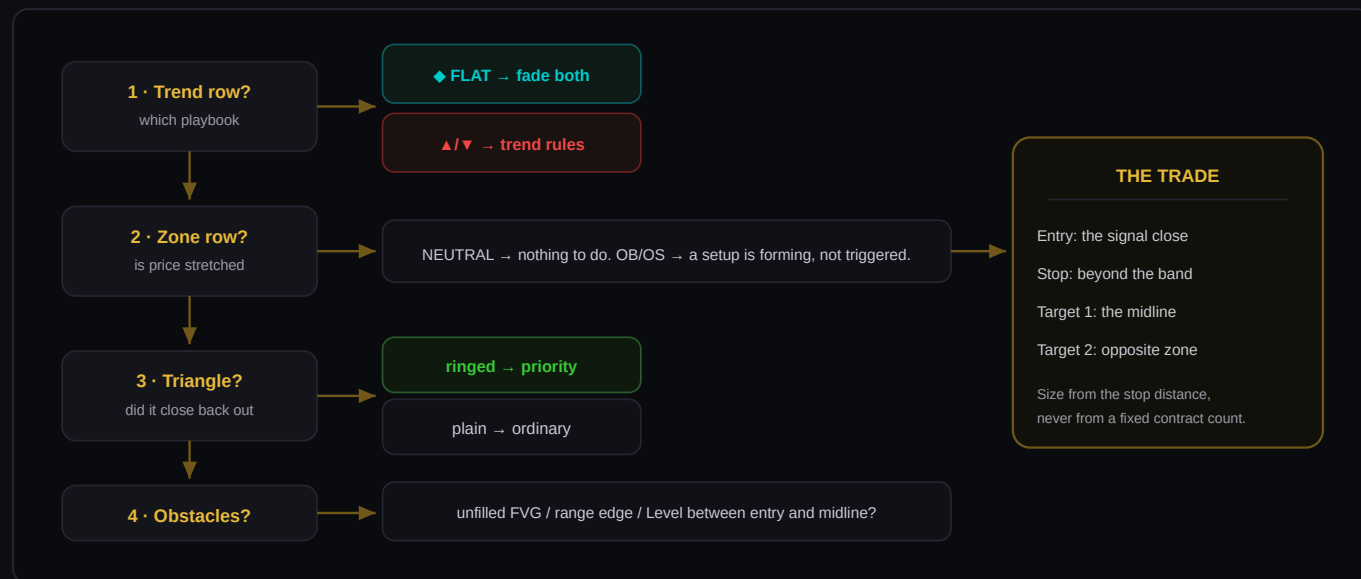
The panel

Everything the engine currently believes, in one corner of the chart. The compact layout is the default; the full layout adds the raw measurements.



The decision routine — one page

If you read nothing else, read this. Every bar, in order — it takes about four seconds once it is habit.



Take it when

The Trend row permits the direction · the triangle has actually printed on a closed bar · the midline is far enough away to pay at least 1.5R · nothing unfilled sits between entry and target.

Skip it when

The midline is already almost at your entry (no room) · the signal fires straight into a Range Level or an old range edge · it is the third signal of the session in the same direction · a major economic release is inside the next few bars.

The rotation trade

The core play, and the one the indicator was designed around: the Trend row reads FLAT, price stretches to a zone, rejects it, and rotates back to the midline.



The playbook

- 1 **Confirm ♦ FLAT.** If the Trend row says anything else, this is not the trade you are in — go to Technique 2 or 3.
- 2 **Wait for the triangle.** Not the zone entry. The close back out is the trigger and it is final — it cannot vanish.
- 3 **Enter at or near the signal close.** Chasing three bars later is the main way this play is spoiled; the midline is a fixed target, so every point you give up at entry comes straight out of the R multiple.
- 4 **Stop just beyond the band** — roughly 10% of the band offset past it. Outside the band the premise (price is stretched and reverting) is dead.
- 5 **Target the midline.** Take most of it there. If you want a runner, the opposite zone is target 2 — but the midline is the high-probability part.

What makes a top-tier one

White ring (divergence) · the midline is at least 1.5R away · the signal bar closes with real conviction rather than a doji · a Range Level or old range edge sits near the midline to give the target a reason to hold.

Skip it when

The midline is right under your entry — no room to pay. The band is unusually narrow (a coil), so an expansion is more likely than a rotation. It is the third rotation signal of the session in the same direction — the "range" is quietly becoming a trend.

Expected frequency

On an intraday chart in a rotational session this fires perhaps one to three times. That is the design. If you are getting many more, your Zone Fraction is too loose.

Trading inside a trend regime

The Trend row reads RISING or FALLING. No counter-trend triangle will print — and that is not the indicator going quiet, it is the indicator changing job from signal generator to map.



The playbook

- 1 **Read the regime and commit to it.** FALLING means you are looking for shorts only, however oversold price looks.
- 2 **Wait for a pullback to the midline** — or to an unfilled FVG, or the edge of an old liquidity range. In a trend the midline is support/resistance, not a target.
- 3 **Enter with the trend on rejection of that level.** This is a discretionary entry — the indicator is not printing a triangle here and will not.
- 4 **Stop beyond the opposite band** (the upper band in a downtrend). It slopes with the trend, so it tightens automatically as the move develops.
- 5 **Exit into the far zone**, or when the Trend row flips to ◆ FLAT — the regime you were trading no longer exists.

The regime flip is the real signal

When the Trend row returns to ◆ FLAT after a long trend, the first ringed reversal signal that follows is the highest-quality read this tool produces. Watch for it specifically.

Using the band as a trail

The opposite band is a volatility-scaled trailing stop that costs you nothing to compute. Trailing on it keeps you in a trend far longer than a fixed-point stop and gets you out when volatility genuinely expands against you.

Do not fade it

If you find yourself thinking "this is too extended, it has to bounce" while the Trend row says otherwise, you are about to take the exact trade the filter was built to stop. The indicator has already refused. Refuse with it.

The override reversal

A ringed triangle against the Trend row. Rare, information-dense, and the highest-risk trade the indicator offers — because you are deliberately trading against the regime.



The playbook

- 1 Identify it correctly.** A ringed arrow while the Trend row disagrees with it. If the row says FLAT, this is Technique 1 instead.
- 2 Halve your size.** Regime-aligned trades get full size; this one does not. The information is good, the context is hostile.
- 3 Stop under the signal bar's extreme,** not beyond the band. The band is far away in a steep trend and would make the R meaningless. The thesis is "that wick was the low" — if it is broken, the thesis is broken.
- 4 Take the midline and be done.** Do not run these. A counter-trend trade that reaches the midline has already delivered everything it promised.
- 5 If the Trend row flips to FLAT while you are in it,** you may hold for more — the regime that made it risky has dissolved.

Why these are worth taking at all

Because the divergence requirement means momentum had already turned before price did. That is a genuinely different situation from "price looks low" — and it is the only counter-trend condition this indicator will endorse.

The honest expectation

These will have a lower hit rate than Technique 1. They earn their place through R multiple, not accuracy: you are catching a turn near its extreme, so the stop is tight and the midline is far. Trade them as a small-size, high-payoff bucket, and never as your bread and butter.

Turning them off entirely

If counter-trend trading is not part of your plan, set **Divergence Overrides Trend Filter** to false. The indicator then never asks you to take one.

Risk, sizing & trade management

The band gives you every number you need to size a trade properly. Using them is what turns a signal into a system.

Size from the stop, not from a contract count

Band width changes constantly — that is the whole point of an adaptive envelope. A fixed position size therefore means your risk per trade swings wildly between a quiet morning and a volatile afternoon. Instead:

```
stop distance = |entry - stop| // in points, read off the chart
position size = (account risk per trade) / (stop distance × point value)
```

Keep account risk per trade constant — commonly 0.5–1% — and let the size float. The R-multiples then become directly comparable across every trade you take, which is the only way to know whether a technique is actually working.

Technique	Stop placement	Size	First target
1 · Rotation (FLAT)	~10% of band offset beyond the band	Full	Midline · take most of it
2 · With-trend pullback	Beyond the opposite band, trail it	Full	Far zone, or the Trend flip
3 · Override reversal	Under the signal bar's wick	Half	Midline · then flat

The minimum-R filter

Before entering, measure entry → midline and entry → stop. If the ratio is under about 1.5, skip the trade regardless of how good the signal looks. A great signal with no room to pay is not a trade.

Band width as a session gauge

Turn the full panel on and watch Band width. A narrow band means a coiled market — expansion is more likely than rotation, so Technique 1 is weaker that session. A wide band means rotations are large and worth taking.

One trade at a time, per side

The One Signal Per Rotation lock exists so you get a single opinion per swing. Honour it in your execution too: if you are stopped out of a rotation trade, do not immediately re-enter on the next setup in the same direction. Wait for the midline cross that re-arms the indicator.

Tuning it to your market

The defaults are calibrated to hold roughly 97% of price and produce one signal every 150–300 bars. Change one thing at a time, and give each change a full session before judging it.

Symptom	Change	Why
Price spends too long inside the zones	Band Multiplier 2.5 → 2.8–3.0	The envelope is too tight for this instrument's tail behaviour.
Price almost never reaches a zone	Band Multiplier → 2.1–2.3, or Zone Fraction → 0.45	Widening the zone is the gentler fix — try it first.
Bands feel laggy on a fast chart	Smooth Length 50 → 30–40	Remember it is a double EMA; 30 here behaves like a much longer single MA.
Band width jumps around too much	Volatility Smoothing 100 → 150–200	Steadier envelope; slower to adapt after a regime change.
Too many bars count as trending	Trend Slope Threshold 0.20 → 0.30–0.40	Loosens the filter, so more signals get through. The first knob to reach for.
Still too many counter-trend fades	Trend Slope Threshold → 0.12–0.15	More bars count as trending, fewer signals survive.
Want only the very best setups	Require RSI Divergence = true	Cuts signal count to roughly a quarter. Grade-2 only.
FVG boxes cluttering	Min Gap Size 0.5 → 0.8–1.0, Max Age 100 → 30–50	Only significant, recent displacement survives.
Chart feels heavy / slow	Glow Effects = false	Glow auto-pauses beyond 2,500 visible bars, but turning it off helps on older machines.

A sane tuning process

Load a week of history on your instrument. Set **Trend Filter** off and count the signals — that is your raw rate. Turn it back on and count again. If the filtered rate is under one per session you are too strict (raise the threshold); if it is more than four or five you are too loose (lower it). Then leave it alone for a month.

What not to do

Do not change several settings at once after a losing trade. The filters are structural — they remove a class of situation, not individual bad trades — and tuning them in response to single outcomes is how a calibrated tool becomes a random one.

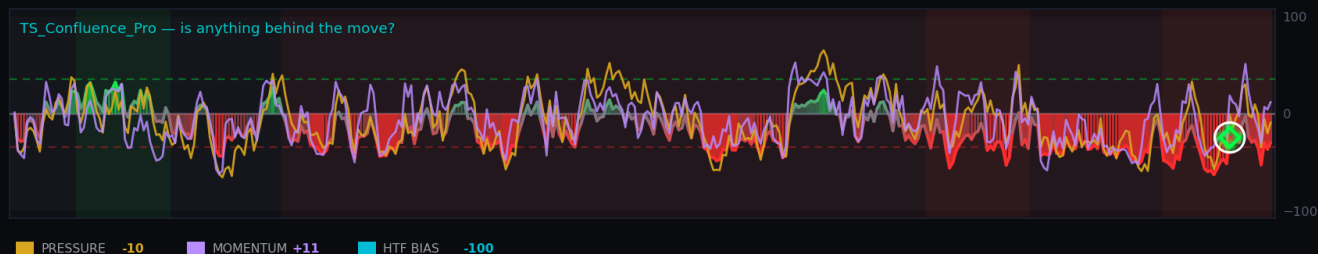
Why a second indicator

The **Range Band** answers two questions completely and a third one not at all. It knows *where* price is (stretched or neutral) and *which regime* you are in (FLAT or trending). What it cannot know, from price geometry alone, is whether the move it is reacting to has any real participation behind it. That is the gap **TS_Confluence_Pro** fills.

TS_Range_Band_Pro — location, regime and the trigger



TS_Confluence_Pro — is anything behind the move?



The full system. Above: the band supplies location, regime and the trigger. Below: the confluence panel supplies participation, momentum and higher-timeframe context — and here it is negative across almost the whole window, while three ▲ signals fire into it.

The panel scores three dimensions the band structurally does not measure and combines them into a single $-100 \dots +100$ conviction line. Each component is also shown in the way that suits how it actually behaves — the two fast ones as lines, the slow one as background context — so the number is never a black box. Deliberately, none of them is a second opinion on the same data; they are all new information.

Participation

True bid/ask delta when the live tape provides it, a volume-weighted close-location model otherwise. Answers "did anyone actually buy that?"

Momentum

RSI(14) level plus its rate of turn — force and change of force, not just position.

Higher-timeframe bias

The band's own trend logic on 15m and 60m. A 2-minute ▲ means something very different when the hourly is also turning.

Absorption

A new price extreme that cumulative pressure refuses to confirm. Not a score — an event, and the single strongest confluence for a band reversal.

The division of labour, in one line

The band tells you **WHEN** and **WHERE**. The confluence tells you **WHETHER**. Neither replaces the other, and the panel never generates an entry on its own.

The confluence panel — anatomy



- 1 **The score histogram** — the composite, coloured and saturated by strength. Green above zero means buyers, red below means sellers.

3 **Zero line** — the balance point. Crossing it is a change of control, not just a change of strength.

5 **The score line** — the same value smoothed for readability. Its slope is what drives the TURNING states.
- 2 **Gate lines** at ± 35 (the Score Threshold). Beyond them the state becomes READY LONG or READY SHORT.

4 **Absorption diamond** — a new extreme without matching pressure. Green = bullish, red = bearish.

• **Component lines** — PRESSURE (gold) and MOMENTUM (violet) on the score's own scale, with HTF BIAS as the background regime tint.

State	Condition	What it means
▲ READY LONG	score $\geq +35$	Buyers in control. Supports longs; argues against fading strength.
TURNING UP	score rose ≥ 18 in 5 bars	Control is changing hands upward. This is the reversal-confirmation state — at a bottom the score is still negative.
NO TRADE	neither	No side has the tape. Most common state, by design.
TURNING DOWN	score fell ≥ 18 in 5 bars	Mirror.
▼ READY SHORT	score ≤ -35	Sellers in control.

The three scored components

Each is computed independently and contributes a weighted share. Seeing them separately is the fastest way to understand what the composite is telling you.



Component	Weight	How it is built
PRESSURE	40	Per bar, a signed participation figure: true bid/ask delta from the live tape, or the bar's close location within its own range, scaled by volume relative to its 50-bar average. Smoothed over 14 bars and divided by its own typical size, so it is comparable on any instrument.
MOMENTUM	30	55% RSI(14) distance from 50, 45% its change over 3 bars. Blending level with rate of turn is what lets it register an exhausted move that is starting to roll before RSI itself leaves the extreme.
HTF BIAS	30	±50 per higher timeframe (15m and 60m by default): a double-EMA basis, slope measured over 10 of that timeframe's bars, normalised by its own ATR, thresholded at ±0.35. Both aligned gives ±100.

Weights are ratios, not percentages — they are normalised by their sum, so 40/30/30 and 4/3/3 behave identically. Turning off **Use HTF Bias** re-normalises the other two automatically and the score stays on the same scale.

How each one is drawn — and why (v1.0.2)
PRESSURE and **MOMENTUM** are lines on the score's own -100...+100 scale, because both can turn *before* the composite does and a line is the only way to see that. **HTF BIAS** is a background tint, because it holds one value for dozens of bars and its only job is to tell you whether the higher timeframes are with you. The v1.0.1 per-bar ribbon rows were removed: at one or two pixels a bar they were texture, not information.

The fourth reading: volatility
Not scored, because it has no direction. The panel reports SQUEEZE / NORMAL / EXPANSION from the deviation percentile. In a SQUEEZE, expansion is more likely than rotation — which weakens the band's Technique 1 for that session.

Absorption — effort without result

Price makes a new 20-bar extreme. Cumulative pressure does not follow. Someone is taking the other side of that push, and the push is failing. It is the rarest thing the panel prints and the most useful.

```
// bullish absorption — the bearish case is the mirror
newLow  = Low[0] < lowest low of the last 20 bars    // by at least 0.08 × deviation
noSell  = cumulativePressure now > cumulativePressure at that prior low
          // by at least 2 × the average bar's pressure
```

Both floors matter. Without the minimum-extreme test, a one-tick new low counts. Without the minimum-pressure-gap test, any small difference counts. With them, absorption fires roughly **once every 300 bars** instead of once every 17 — which is what makes a diamond worth looking at.

It leads the band signal

This is the single most useful thing to know about it. Absorption fires at the **extreme**; the band's triangle fires on the **exit** from the zone. So the diamond normally arrives first — a median of 3 bars earlier across the test set, sometimes considerably more.

Practically: **a diamond is your cue to get ready**, not to enter. You wait for the band to confirm with its triangle, and the fact that absorption already fired is what upgrades that triangle to an A+ setup.

Why it is the best confluence

Every other input is a smoothed measure of what price did. Absorption is a statement about who was on the other side of a specific push — the closest thing to order-flow evidence available without a DOM.

How often to expect it

Around 10% of band signals have same-side absorption within 12 bars. It is a small, high-quality bucket — not a daily occurrence, and not something to force.

Installing the panel

- 1 **Copy the file.** `TS_Confluence_Pro.cs` into `Documents\NinjaTrader 8\bin\Custom\Indicators\`, delete any older copy first, press F5.
- 2 **Add it to a NEW panel.** This is the one step people get wrong: in the Indicators dialog, set the **Panel** dropdown to a new panel, not the price panel. NinjaTrader fixes panel placement when the indicator is added — you cannot move it afterwards from the settings, only by removing and re-adding.
- 3 **Drag the panel taller.** Around **240 pixels** is the sweet spot: the score gets real vertical range and the component ribbon is comfortable. It renders correctly from about 90px upward, but below ~110px the ribbon rows are suppressed automatically to give the score room.
- 4 **Enter your license key** under `0A. License`. Product code CFP.

Warm-up

The pressure normaliser is a 56-bar EMA and the volatility percentile looks back 200 bars, so give it roughly **150–200 bars** before the score means anything. The panel shows a WARMUP volatility state until then.

Panel layout options

Compact Panel (default on) draws the slim horizontal status strip — the right shape here. Turning it off draws the full vertical panel, which only fits if the lower panel is very tall; it falls back to the strip automatically if it would not fit.

If the panel ever looks wrong

On v1.0.0 the axis could collapse to a meaningless range and every bar mapped off-screen. v1.0.1 states the scale explicitly and computes the whole layout in pixels, so it renders correctly at any height. If your axis shows anything other than roughly `-100...+100`, you are on the old build.

About the pressure source

The panel's `Pressure Src` row reads `AUTO` (price-volume) on historical bars and flips to `BID/ASK DELTA` once live ticks start pricing bars. There is no quote history on historical data — no indicator can produce true delta there without a tick-replay feed.

Why a third indicator

The band measures where price is. The confluence measures who is participating. Neither asks the question ML RSI is built around: *when momentum looked exactly like this before, what happened next?*

1 · TS_Range_Band_Pro — location, regime, trigger (violet = the ML Supertrend trail)



2 · TS_Confluence_Pro — participation, momentum, higher-timeframe regime



3 · TS_ML_RSI_Pro — what happened last time momentum looked like this



The complete system. Location and trigger on the price panel — with the ML Supertrend trail in violet — participation and regime below it, and the analog engine at the bottom.

Every bar, ML RSI condenses RSI behaviour into an eight-dimensional fingerprint, searches a memory bank of hundreds of labelled historical bars for the closest matches, and lets those analogs vote on direction. A learning layer re-weights which features matter on *your* instrument, and two independent scores — Rank for quality, Confidence for conviction — gate every signal.

Where it overlaps, stated plainly

ML RSI and the Confluence panel both start from RSI, so their momentum readings are **correlated**. When they agree, that is weaker evidence than when two independent measures agree — you are partly hearing the same information twice. Treat ML RSI's contribution as the two things the confluence genuinely cannot produce: the **analog vote** (a statement about history, not about the present bar) and the **adaptive Supertrend** (a trade manager, not a signal).

What is genuinely new · 1

The **analog vote**. No other tool in the suite says anything about what previously followed this shape of momentum. It is a different kind of claim entirely.

What is genuinely new · 2

The **ML Supertrend**. The band gives you an entry, a stop and a target. This gives you a *dynamic trail* that tightens as conviction rises — the missing piece of trade management.

The oscillator — anatomy



Element	What it is
The ML RSI line	Not a plain RSI. It is the analog-vote-adjusted momentum reading, drawn blue when it is above its signal line and white when below — so the state is readable without measuring anything.
The signal line	A smoothing of the ML RSI (length and type are settable). The cross is the conventional read, but it is <i>not</i> what generates the markers.
70 / 50 / 30 bands	Reference only. Because the line is analog-adjusted rather than raw RSI, these are not classic overbought / oversold thresholds and should not be traded as such.
▲ / ▼ markers	A stance change that passed both the Rank and Confidence gates plus every enabled filter. These are rare by design.

Display modes

Oscillator (default) puts it in its own panel — the right choice when running all three tools. **Overlay** draws the Supertrend and markers on the price panel instead. Panel placement is fixed when you add the indicator, so choose the panel in the Indicators dialog, not afterwards.

Bar painting

Paint Bars colours the price candles by ML stance. Turn it **off** when running the full system — the band already paints candles on a touch, and two tools fighting over candle colour is worse than either alone.

Rank, Confidence and the gates

Two scores, measuring different things, both of which must clear a threshold before a marker can print. This is why ML RSI signals are far rarer than RSI crosses.

Score	Gate	What it measures
Rank	≥ 60	Quality of the match. How closely the current fingerprint resembles the analogs that were found, percentile-ranked against recent history. A high Rank means "history has genuinely seen this before".
Confidence	≥ 50	Conviction of the vote. How lopsided the analogs were. A high Confidence means "the ones it found mostly agreed".

They are independent, and the distinction matters: a strong match where the analogs disagreed is a *familiar but ambiguous* situation, while a weak match where they all agreed is *confident about something it has barely seen*. Requiring both is what removes each failure mode.

The additional filters

Filter	Default	Effect
Trend Gate	on	Signal must agree with the ML Supertrend's current direction. Removes counter-trend markers.
Volatility Band	on	Suppresses signals when volatility rank is below Min Vol Rank — dead markets produce meaningless analogs.
Chop Filter	on	Suppresses signals when the engine detects range-bound conditions.
Auto Weights	on	A Fisher-discriminant optimiser continuously re-weights the eight features by how well each separated winners from losers on your instrument.

Same caveat as everything else in this suite

The gates are **structural** filters — they remove classes of low-information setup. They have not been shown to produce positive expectancy on real market data, and the analog engine's historical vote is a statement about the past, not a forecast.

The ML Supertrend — a trade manager

This is the piece that earns ML RSI its place in the system, and it is not a signal generator. It is a trailing stop whose distance responds to how certain the engine currently is.

The ML Supertrend — a conviction-adaptive trail. It tightens when the analogs agree and widens when they do not, so the stop breathes with the engine's certainty.



The trail on the price panel. Green while the stance is long, red while short. Its distance is not fixed — it contracts as conviction builds and widens when the analogs disagree.

```
drive    = |conviction|·0.5 + tightness·0.3 + agreement·0.2    // scaled down in detected chop
distance = ATR(10) × Multiplier × ( 1 + Adaptivity × ( 1 - drive ) )
```

Full conviction tightens the trail toward the base multiplier and follows price closely. No conviction — or detected chop — widens it to as much as double, giving the position room instead of stopping out on noise. The flip logic itself is conventional: a close beyond the opposite band.

How to use it in the system

Take the band's entry and its initial stop. Once the trade is beyond roughly 1R, **switch your stop to the Supertrend line** and trail it. You get a volatility- and conviction-scaled trail for free, which is strictly better than a fixed-point trail and better than trailing the band in a fast move.

What not to do with it

Do not use a Supertrend flip as an entry in this system. The band owns entries. Adding a second, correlated entry trigger is how you end up over-trading with the illusion of confirmation.

Installing it alongside the other two

- 1 **Copy the file** into Documents\NinjaTrader 8\bin\Custom\Indicators\, delete any older copy first, press F5.
- 2 **Add it to a third panel** — below the confluence panel. Leave **Display Mode** on Oscillator. Panel placement is fixed at add-time.
- 3 **Turn Paint Bars off** so it does not fight the band's touch colouring, and leave **Show Supertrend** on — the trail is the point.
- 4 **Enter your key** under 0A. License. Product code MLR.

The recommended chart layout

Panel 1 price + Range Band (+ the ML Supertrend drawn on it). **Panel 2** Confluence, ~240px. **Panel 3** ML RSI oscillator, ~180px. Reading order is top to bottom and matches the decision order: where am I, who is participating, what usually followed this.

Warm-up

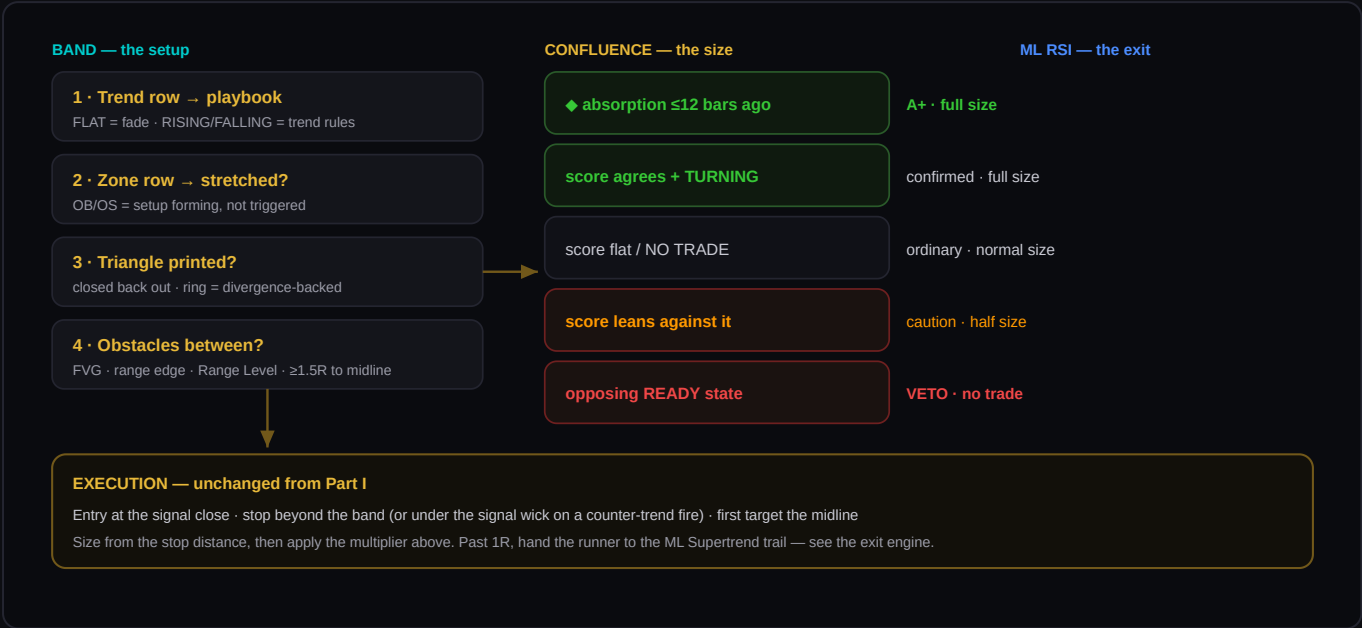
The memory bank needs history before it can vote. Give it several hundred bars — the panel's Rank and Confidence rows stay muted until the bank is populated.

Performance

This is by far the heaviest of the three: a k-NN search over a 500-bar memory bank every bar. Cap Max Bars To Calculate (default 5,000) rather than running it over a year of 1-minute data, and expect it to be the reason a chart feels slow if one does.

The system — one page

This replaces the single-tool routine in Section 17 once you are running both. Same four questions from the band, with the confluence answering a fifth that decides your size.



The one hard rule

Only the band may trigger. The confluence can veto and can size, but a READY LONG with no band signal is not an entry. An ML Supertrend flip is not an entry either — it is an exit tool. Every trade in this system begins with a triangle, a star, or nothing at all.

Why it vetoes rather than confirms

The instinct is to demand that the confluence agree before taking a band signal. That is the wrong way round, and the numbers say so clearly.

At a genuine bottom, the score is *still negative* — selling has been in control, which is exactly why price is at the lower band. Requiring a positive score before buying means waiting for confirmation that only arrives after the move. Measured across ten test runs and 260 band signals:

Rule	Signals taken	Character
Veto only skip when the confluence is in the OPPOSING READY state	79%	Recommended. Removes the 21% where the tape flatly contradicts the setup, keeps everything else.
Require agreement score must be aligned or turning	29%	Very selective. Throws away good reversals because the score has not turned yet at the entry bar.
A+ only same-side absorption within 12 bars	10%	A small, high-quality bucket. Worth sizing up on, not worth trading exclusively.



Reading the middle ground

Most disagreements are not hard vetoes. Treat the score as a dial, not a switch: strongly against → skip, mildly against → half size, flat → normal, aligned or turning → full, absorption → A+.

The A+ absorption reversal

The best trade the two tools produce together, and the reason to run them as a pair at all: the panel sees the extreme failing before the band can confirm it.

THE A+ SETUP — absorption leads, the band triggers, the score agrees



Sequence: ① a bearish absorption diamond fires at the high — a new extreme with less buying behind it than the previous one. ② sixteen bars later the band closes back out of the OB zone and prints ▼. ③ the score is negative and turning down at the trigger. Every input agrees.

The playbook

- 1 The diamond is the alert, not the entry.** When one prints, note the side and start watching the band's zone.
- 2 Wait for the triangle** on the same side, within roughly 12 bars. If price simply keeps going and no triangle appears, the absorption was absorbed in turn — no trade, no harm.
- 3 Check the score at the trigger bar.** Ideally aligned or turning your way. Negative-and-falling for a short is agreement, not disagreement.
- 4 Full size, standard stop** — beyond the band, per Part I. This is the one setup where you are not hedging with half size.
- 5 Midline first, then consider the far zone.** With absorption behind it this is the setup most likely to run past target 1.

Why the gap between them is fine

Absorption marks the extreme; the band marks the exit. A lead of a few to a couple of dozen bars is normal and is not staleness — it is the two tools doing different jobs on the same event.

Do not force it

This lines up on roughly one band signal in ten. If you find yourself stretching the definition — an old diamond, the wrong side, no triangle yet — you are inventing a setup rather than finding one.

The ringed variant

If the band's triangle also carries a white ring (RSI divergence) and absorption fired, that is the highest-information setup in the whole system: three independent measurements of the same exhaustion.

The trend regime, with HTF agreement

Part I's Technique 2 asked you to trade with-trend pullbacks on discretion, because the band prints no signal in a trend regime. The HTF BIAS row turns that discretion into a rule.

The upgrade

In Part I, a FALLING Trend row told you to look for shorts. The obvious question — *is this actually a trend worth following, or a wobble on the 2-minute?* — had no answer from the band alone.

HTF BIAS answers it directly. -100 means both the 15-minute and the 60-minute basis are falling. That is a real trend and pullbacks into it are worth taking. -50 means one of them; treat it as half a vote. 0 while your 2-minute Trend row says FALLING means you are trading a move the higher timeframes have not confirmed — smaller size, tighter targets.

The entry, unchanged

Pullback to the midline, an unfilled FVG, or an old liquidity-range edge. Stop beyond the opposite band and trail it. Exit into the far zone or when the Trend row flips to FLAT.

The size table

HTF ± 100 — full size, trail the band, let it run.

HTF ± 50 — normal size, take the far zone rather than running it.

HTF 0 — half size, or stand aside and wait for the band's Trend row to return to FLAT and trade the reversal instead.

The regime-flip trade

Part I called the first ringed reversal after a Trend row returns to FLAT the highest-quality read the band can offer. Now you can qualify it: if HTF BIAS has also moved off its extreme toward zero, the higher timeframes are turning too, and that signal is worth full size.

The warning sign

2-minute Trend row FALLING while HTF BIAS reads $+100$ is a pullback inside a higher-timeframe uptrend, not a downtrend. Shorting it is fighting the dominant flow — this is exactly the situation the veto exists for.

Volatility state as the session filter

Before the first trade of the session, read the volatility row once. **SQUEEZE** → expansion is more likely than rotation; the band's fade plays are weaker and breakout continuation is more likely. **EXPANSION** → rotations are large and worth taking, but stops must be sized off the wider band, not off yesterday's numbers.

Combined sizing matrix

Section 21 gave you the sizing framework for the band alone. Here it is again with the confluence multiplier applied — the complete decision, in one table.

Band setup	Confluence reading	Size	Stop / target
Rotation (FLAT)	absorption ≤ 12 bars	Full $\times 1.25$	Beyond the band · midline, then far zone
Rotation (FLAT)	aligned or turning	Full	Beyond the band · midline
Rotation (FLAT)	flat / NO TRADE	Normal	Beyond the band · midline, take most of it
Rotation (FLAT)	leans against	Half	Beyond the band · midline only, no runner
Rotation (FLAT)	opposing READY state	Skip	—
Override reversal ringed, counter-trend	absorption or aligned	Half	Under the signal wick · midline, then flat
Override reversal	leans against	Quarter or skip	Under the signal wick · midline only
With-trend pullback	HTF ± 100	Full	Beyond the opposite band, trail · far zone
With-trend pullback	HTF ± 50	Normal	Beyond the opposite band · far zone
With-trend pullback	HTF 0 or opposing	Half or skip	Tighter stop · first target only

"Full $\times 1.25$ " is not a licence to gamble

It means the A+ bucket may carry a modestly larger fraction of your per-trade risk budget — not that you abandon the budget. If 1% is your normal risk, 1.25% is the ceiling here, and everything else scales down from Full accordingly.

Never size up to recover

The multipliers respond to setup quality, never to your P&L. Two losses in a row do not make the next A+ setup a double-size trade, and they do not make an ordinary setup a half-size one either.

Daily discipline

Decide your maximum number of trades and maximum daily loss before the session. The system is designed to produce few signals — typically one to three band triggers in a rotational session, fewer in a trend. If you are taking more than that, you have loosened something.

The exit engine — where ML RSI earns its place

Parts I and IV so far have given you entries, stops and a first target. What they have not given you is a way to stay in a move that keeps going. That is the job the ML Supertrend does, and it is the cleanest division of labour in the whole system.

The ML Supertrend — a conviction-adaptive trail. It tightens when the analogs agree and widens when they do not, so the stop breathes with the engine's certainty.



The trail on the price panel. Its distance is not fixed — it contracts as the analog engine's conviction rises and widens when the analogs disagree, so the stop breathes with certainty rather than with a constant ATR multiple.

The handover

- 1 **Entry and initial stop come from the band.** Beyond the band for a rotation, under the signal wick for an override or capitulation. Nothing changes here.
- 2 **Take your first scale at the midline** as before. This is the high-probability part of every rotation trade and should not be surrendered to a trail.
- 3 **Past roughly 1R, hand the remainder to the Supertrend.** Move your stop to the trail line and follow it. You now have a volatility- and conviction-scaled trail, which is strictly better than a fixed-point one and better than trailing the band in a fast move.
- 4 **Exit on the trail, or on a Trend row flip to FLAT** — whichever comes first.

Why this is a real division of labour

The band is a mean-reversion tool and its targets are fixed levels; it has no mechanism for riding a move. The Supertrend is a trend-following construct with no opinion about location. Each is doing the thing the other structurally cannot, which is exactly the test any added tool should have to pass.

The discipline this requires

A trail gives back open profit by design. If watching an unrealised gain shrink causes you to exit early anyway, you do not have a trailing system — you have a fixed-target system with extra anxiety. Decide in advance which it is, per trade, before the entry.

Do not let it become a second entry trigger

A Supertrend flip is not an entry in this system. The band owns entries; the confluence sizes them; the Supertrend manages them. Adding a correlated second entry signal is how three tools become an excuse to trade more rather than better.

TS_Range_Band_Pro — Band Engine & Signals

1. Band Engine

Setting	Default	What it does
Band Source	HL2	Price series the basis is built from. HL2 centres the envelope on each bar's range and is the most stable choice. Close reacts faster and is noisier.
Smooth Length	50	Basis smoothing period. The basis is a double EMA, so effective smoothing is much heavier than a single MA of this length. Higher = the slow, sleek curve. Lower = faster but the band starts chasing price.
ATR Length	14	ATR period feeding FVG minimum size and the liquidity-range compression test. Does not affect band width.
Volatility Smoothing	100	EMA applied to the deviation unit so band width stays stable instead of breathing with every spike. Raise for a steadier envelope, lower to adapt faster after a volatility regime change.
Band Multiplier	2.5	Distance of each band from the basis in deviation units. 2.5 contains roughly 97% of price action. Higher = wider envelope and rarer zone visits.
Zone Fraction	0.35	Depth of the OB/OS strip as a fraction of the band offset. 0.35 puts the inner edge 35% of the way from band toward basis. Lower = stricter, fewer setups.

2. Signals

Setting	Default	What it does
Show Signals	true	The reversal triangles. Turn off to use the indicator purely as an envelope and context tool.
Signal Size	10	Triangle height in pixels; the glow and the divergence ring scale with it. Range 4–30.
Trend Filter	true	Blocks counter-trend reversals: no ▲ while FALLING, no ▼ while RISING. The main noise filter — Section 8.
Trend Slope Threshold	0.20	Basis slope (deviation units per 10 bars) beyond which the regime counts as trending. Higher = looser filter, more signals . The first knob to adjust if the indicator feels too quiet.
Divergence Overrides Trend Filter	true	Lets a divergence-backed setup fire against the trend state, recovering V-reversals the slope filter would block. Plain signals are still blocked — Section 11.
One Signal Per Rotation	true	After a signal, that side stays disarmed until price closes back through the midline. Kills same-side signal ladders — Section 9.
Require RSI Divergence	false	Hard gate: only grade-2 (divergence-backed) signals may print. Cuts count to roughly a quarter.
Volume Filter	false	Requires the signal bar's volume above its 20-bar average. Useful on futures, meaningless on synthetic or thin instruments.

Band Touch & Capitulation

2A. Band Touch (new in v1.1.2)

Setting	Default	What it does
Touch Reference	BandLine	What counts as touching: the band line itself (a true extreme, rarer) or the OB/OS zone edge (an earlier, more frequent warning).
Colour Touching Candles	true	Repaints any candle whose wick reaches the reference. The brush is assigned every bar, so a bar that does not reach it keeps the chart's normal colours — no stale paint.
Upper / Lower Touch Colour	amber / orange	Deliberately not the band colours, so a touched candle is distinguishable from the band behind it.
Touch Alert (sound)	false	Fires at most once per candle however many ticks touch the band — it never buzzes continuously, even on OnEachTick.
Touch Alert Sound File	Alert2.wav	Any .wav in Documents\NinjaTrader 8\sounds, including your own.
Touch Visual Flash	true	Rings the wick that reached the band and shows a banner at the top-right. Since v1.2.0 only the extreme bar of each touch run is ringed — in a sustained flush every bar reaches the band, and ringing all of them buried the one bar that mattered.
Flash Duration (bars)	3	How long that banner stays up.

Touch vs signal — two different events

The coloured candle marks the **touch** that starts a setup; the triangle marks the **exit** that triggers it. Seeing both makes the sequence in Section 6 visible on the chart rather than something you have to infer.

2B. Capitulation Reversal (new in v1.2.0)

Setting	Default	What it does
Show Capitulation Reversals	true	The separate flush-reversal detector. Bypasses the Trend Filter and the divergence requirement by design; marked with a yellow star.
Flush Lookback (bars)	10	How far back to look for the beyond-band extreme that the snap-back is reversing.
Climax Ratio (ATR3/ATR20)	2.0	Uncalibrated. Range expansion required at the extreme bar. Set it from the panel's Climax max on your own market — see the calibration section.
Volume Ratio (bar/SMA20)	1.5	Uncalibrated. Volume spike required at the extreme bar. Same procedure.
Cooldown (bars)	25	Minimum bars between capitulation signals. If you are getting several a session, the thresholds are too low.
Capitulation Marker	#FFEB3B	Gold starburst inside a white ring, deliberately unlike every other marker on the chart.

Levels, Gaps & Ranges

3. Range Levels

Setting	Default	What it does
Show Range Levels	true	The auto-spaced horizontal grid at the right edge, anchored to the midline.
Level Factor	0.6	Level spacing = band width × this factor, rounded to a nice number (1 / 2 / 2.5 / 5 × 10 ⁿ). Lower = a denser grid.
Levels Per Side	3	How many levels above and below the anchor. Range 1–8.

4. Fair Value Gaps

Setting	Default	What it does
Show FVG Boxes	true	Three-bar displacement gaps, drawn only while unfilled and inside Max Age.
Min Gap Size (xATR)	0.5	A gap must span at least this many ATRs to register. Raise to 0.8–1.0 to keep only significant institutional displacement.
Max Age (bars)	100	A gap older than this is removed even if unfilled. Lower to 30–50 on fast intraday charts.

5. Liquidity Ranges

Setting	Default	What it does
Show Liquidity Ranges	true	Grey boxes over volatility-compressed consolidations — the coils that precede expansions.
Range Length	15	Rolling window used to measure consolidation width.
Range Compression (xVol)	3.0	The window counts as a consolidation while its high-low width is at most this many smoothed-ATR units. Lower = only the tightest coils qualify.

Colors, Alerts & About

6. Appearance

Setting	Default	What it does
Show Zone Fills	true	The OB/OS strips, including the brighter highlight while occupied.
Glow Effects	true	Soft glow under band lines and signals. Auto-pauses beyond 2,500 visible bars.
Show Band Price Tags	true	Live UPPER / MID / LOWER price pills at the right edge.

7. Colors

Setting	Default	Notes
Upper Band	#4CAF50	Also colours the UPPER price tag.
Lower Band	#F23645	Also colours the LOWER price tag.
Midline	#00BCD4	Also colours the MID price tag.
OB Zone Fill	#1B3E5C	The strip below the upper band.
OS Zone Fill	#54222A	The strip above the lower band.
FVG Boxes	#B2B5BE	Grey by design so gaps stay background context.
Liquidity Ranges	#B2B5BE	Same grey, drawn with a dashed edge.
Bull Signal ▲	#00FF44	The divergence ring is always white regardless of this.
Bear Signal ▼	#FF2E2E	

8. Alerts

Setting	Default	Notes
Enable Alerts	true	Sound plus the NinjaTrader alerts window on reversals and zone entries. Realtime only — never fires on historical bars or during playback catch-up.

0. About · 0A. License

Setting	Default	Notes
Website	tradersuite.online	Shown in the panel header.
Show Logo	true	Downloads the brand mark once and caches it; falls back to a monogram if offline.
Show Panel	true	The statistics panel.
Compact Panel	true	Smaller layout. Turn off for Band width, Deviation and Level step rows. Auto-enables on short charts regardless.
License Key	—	Your key. Validated online, cached 24 hours, with a 7-day offline grace period.

TS_Confluence_Pro — engine inputs

1. Pressure

Setting	Default	What it does
Pressure Source	Auto	Auto uses true bid/ask delta from the live tape when it is available and the volume-weighted close-position model otherwise. PriceVolume forces the model on both. The panel's Pressure Src row reports which is live.
Pressure Length	14	Smoothing on the signed per-bar participation. Lower reacts to one aggressive bar; higher needs sustained one-sided flow.
Pressure Weight	40	Share of the composite. Weights are normalised, so only the ratio matters.

2. Momentum

Setting	Default	What it does
Momentum Weight	30	Share of the composite. The component itself blends RSI(14)'s distance from 50 with its 3-bar rate of turn.

3. Higher Timeframe

Setting	Default	What it does
Use HTF Bias	true	Adds two higher-timeframe data series. Turning it off removes the component and re-normalises the remaining weights.
HTF 1 (minutes)	15	First higher timeframe. Rule of thumb: 5–8× your chart period.
HTF 2 (minutes)	60	Broader context. Rule of thumb: 4–5× HTF 1.
HTF Smoothing	20	Double-EMA length applied on each higher timeframe before its slope is measured.
HTF Slope Threshold	0.35	Basis movement over 10 higher-timeframe bars in ATR units, beyond which that timeframe counts as trending. Higher = only strong HTF trends register.
HTF Weight	30	Share of the composite.

4. Gates

Setting	Default	What it does
Score Threshold	35	Score beyond which the state becomes READY LONG / READY SHORT — and therefore the level at which a hard veto applies. Higher = fewer vetoes.
Turn Lookback	5	Bars over which the score's rate of change is measured for the TURNING states.
Turn Sensitivity	18	Score points of change over that lookback needed to call a turn. Lower = more turn states.
Show Absorption	true	The diamond markers. Turning this off removes the best single input the panel has — leave it on.

Confluence — appearance & alerts

5. Appearance · 6. Alerts

Setting	Default	What it does
Show Histogram	true	The score histogram behind the line. Becomes a continuous field automatically when bars get denser than ~3 pixels.
Show Component Lines	true	PRESSURE (gold) and MOMENTUM (violet) plotted on the score's own scale, with a colour key showing their live values. HTF BIAS is drawn separately as the background regime tint and is always on when the HTF component is enabled.
Show Gate Lines	true	Zero line and the ± threshold guides.
Glow Effects	true	Auto-pauses beyond 2,500 visible bars.
Bullish / Bearish / Neutral / Accent	—	Colours for the histogram, line, ribbon and markers.
Enable Alerts	true	Sound plus the alerts window on READY LONG / READY SHORT transitions and on every absorption print. Realtime only.

The two settings that actually change behaviour

Score Threshold sets the level at which a hard veto applies — raise it to make the panel less interventionist. **Show Absorption** should stay on: the diamonds are the single strongest input the panel produces, and everything else here is presentation.

Panel sizing is not a setting

The layout adapts to whatever height you drag the panel to. Around 240px is the sweet spot; below ~110px the component ribbon is suppressed automatically to give the score room, and below ~90px the status strip hides and the right-edge tag carries the state.

TS_ML_RSI_Pro — every input

1. Display · 2. ML Brain

Setting	Default	What it does
Display Mode	Oscillator	Own panel (recommended when running all three) or Overlay on the price panel.
Price Source	Close	Series the RSI fingerprint is built from.
RSI Base Length	14	Core RSI period. The fingerprint also uses 7 and 28 internally for the spread feature.
Memory Depth	500	Labelled bars retained in the analog bank. Larger = more history to match against, and more work per bar.
Analog Count (k)	8	Nearest neighbours that vote. Lower is twitchier; higher smooths the vote.
Max Bars To Calculate	5000	Hard cap on how far back the engine runs. The main performance control.

3. Signals

Setting	Default	What it does
Show Signal Markers	true	The ▲ / ▼ stance-change markers.
Paint Bars	true	Colours price candles by stance. Turn this off when running the Range Band, which paints candles on a band touch.
Min Rank	60	Match-quality gate. Raise for fewer, better-matched signals.
Min Confidence	50	Vote-conviction gate.
Use Trend Gate	true	Signal must agree with the Supertrend direction.
Use Vol Band / Min Vol Rank	true / 20	Suppresses signals in dead volatility, where analogs are meaningless.
Use Chop Filter	true	Suppresses signals in detected range conditions.
Learning Sense	0.5	ATR multiple used to grade each historical bar's outcome when it is written into the memory bank.

ML RSI — optimizer, trail & series

4. Auto Weight Optimizer · 5. Feature Weights

Setting	Default	What it does
Auto Weights	true	Fisher-discriminant optimiser re-weights the eight features by how well each separated winners from losers. Leave on.
Adaptation Speed	1.0	How quickly new weights are blended in.
W Value ... W Regime	1.0 each	Manual per-feature weights, used only when Auto Weights is off. Eight features: value, slope, acceleration, midline distance, percentile, churn, spread, regime.

6. ML Supertrend · 7. RSI Signal Line

Setting	Default	What it does
Show Supertrend	true	The adaptive trail. Keep it on — in this system it is the trade manager.
ATR Multiplier	1.5	Base distance. The engine widens this up to roughly double when conviction is low.
Adaptivity	1.0	How strongly conviction modulates the distance. 0 makes it a conventional fixed-multiple Supertrend.
Signal Line Length / Type	—	Smoothing applied to the ML RSI to produce the gold line. Type includes a manual Wilder RMA, since NT8 has no built-in SMMA.

Exposed series for strategies

MLRsi · RsiSignalLine · BBUpper · BBLower · Supertrend · TrendDirection · Bias · Rank · Confidence · Agreement · MatchQuality · AnalogScore · Stance · LongSignal · ShortSignal · VolRank · ChopFlag

Alerts & strategy access — all three tools

Alerts

Alerts fire on realtime bars only. Four events are raised:

Event	Sound	Message
Bull reversal	Alert2.wav	Close back above the OS zone, with price. Appends · STRONG (RSI divergence) when grade 2.
Bear reversal	Alert2.wav	Close back below the OB zone, same grading suffix.
OB zone entry	Alert1.wav	Price entered the overbought zone — informational, a heads-up not a trigger.
OS zone entry	Alert1.wav	Price entered the oversold zone.

Using it from a strategy

Every internal series is exposed as a read-only `Series<double>`:

```
var rb = TS_Range_Band_Pro(...);

rb.Basis[0]           // the midline
rb.UpperBand[0]       rb.LowerBand[0]
rb.ObInner[0]         rb.OsInner[0]    // zone inner edges
rb.InObZone[0]        rb.InOsZone[0]   // 1 / 0 occupancy
rb.BullSignal[0]       rb.BearSignal[0] // 1 on the signal bar
rb.TrendState[0]       // +1 rising / 0 flat / -1 falling
rb.SignalGrade[0]      // 2 = STRONG, 1 = normal, at signal bars
```

A ready-made filter

`SignalGrade[0] == 2` is the "take only the best" condition, and any signal where `SignalGrade[0] == 2` while `TrendState[0] != 0` and disagreeing with it is a v1.1.1 override trade — the Technique 3 bucket, which you will usually want to size differently.

TS_Confluence_Pro

Two alert families: a **state transition** into READY LONG / READY SHORT (Alert1.wav) and every **absorption** print (Alert2.wav, with the side in the message). Its series:

```
var cf = TS_Confluence_Pro(...);

cf.Score[0]           // -100..+100 composite
cf.PressureScore[0]    cf.MomentumScore[0]    cf.HtfScore[0]
cf.ConfluenceState[0]  // +2 ready long / +1 turning up / 0 / -1 / -2
cf.Absorption[0]       // +1 bullish, -1 bearish, 0 none
cf.VolatilityPct[0]    // 0-100 deviation percentile
cf.CumulativePressure[0] // session-anchored
```

The system, as a strategy condition

The veto rule in code — the whole of Section 34 in three lines:

```
bool bandLong = rb.BullSignal[0] == 1;
bool vetoed   = cf.ConfluenceState[0] == -2;
bool aPlus    = MR0(() => cf.Absorption[0] == 1, 1, 12) >= 0;
```

Note on the enum properties

42 · Alerts & strategy access

Band Source, **Touch Reference** and **Pressure Source** carry no `[NinjaScriptProperty]` attribute, so they do not appear in the strategy constructor's parameter list. This is deliberate — NinjaTrader's generated-code region cannot resolve namespaced enum

Licensing & activation

Both indicators use the TraderSuite License System. Each is licensed separately — RGB for Range Band Pro, CFP for Confluence Pro — and each is designed to stay out of your way, including when your internet does not cooperate.

- 1 **Get your key** from your TraderSuite account at tradersuite.online. Product codes: RGB (Range Band) and CFP (Confluence).
- 2 **Paste it into** 0A. License → License Key on each indicator. The field is masked.
- 3 **Check the panel.** Status should read ✓ **ACTIVE** with your activation count. If it reads TRIAL, the remaining days are shown.

Status	Meaning
✓ ACTIVE	Validated. Re-checked online every 24 hours in the background.
✓ ADMIN	A master key. Unlimited activations.
TRIAL — n days	Seven-day evaluation. Full functionality.
OFFLINE GRACE	The validation server could not be reached, but a previously good validation is cached. The indicator keeps working for 7 days before it locks.
NOT LICENSED	No valid key. The chart shows a licence overlay and signals are suppressed.

Your key is never drawn on the chart

NinjaTrader builds the label across the top of each panel from the indicator's registered inputs. If a licence key is one of them, NT8 prints it **in plain text on your chart** — leaking in every screenshot, screen share and recording. Masking the settings field does not prevent this.

Since Band v1.1.3 / Confluence v1.0.1 / ML RSI v1.0.1 the key is excluded from that mechanism entirely, and the label is replaced with a clean product name. If you are running an older build, **update and rotate your key** — assume any key that was ever displayed is compromised.

Machine changes

Each key allows a set number of activations. Reinstalling NinjaTrader on the same machine does not consume one; moving to a new machine does. Contact support to release a seat.

Privacy

Validation sends only your key and a machine fingerprint. No chart data, no instrument list, no trading activity of any kind leaves your machine.

What these indicators are not

Being clear about the limits is what makes the strengths usable. None of the following is a defect — each is a deliberate boundary.

It is not a prediction engine

The bands describe where price is relative to its own recent behaviour. That is a **measurement**, not a forecast. A touch of the upper band means price is stretched, not that it is about to fall.

The filters are noise reduction, not proven edge

This matters and we would rather say it plainly. The Trend Filter, the rotation lock and the divergence override were validated for what they **structurally remove** — counter-trend fades in trending regimes, repeated same-side signals, ungraded counter-trend entries. They were **not** validated as producing positive expectancy, because the synthetic data used to calibrate the geometry has no genuine exhaustion mechanics and cannot answer that question honestly. The same applies to every number quoted for the confluence pairing in Part III — 21% vetoed, 10% A+, the 3-bar absorption lead — those describe how often the tools *agree*, not how often they are *right*. Whether any of it makes money on *your* instrument and timeframe is something only your own forward testing can establish. Run both on playback before you run them live.

It is not a complete system

There is no position sizing, no session filter, no news awareness and no correlation logic. Sections 21 and 37 give you the sizing framework; the rest is yours.

ML RSI is not a prediction, and it overlaps the confluence

The analog vote is a statement about what followed similar past momentum — a historical frequency, not a forecast, and the memory bank is only as representative as the history it has seen. It also shares its RSI input with the confluence panel's momentum component, so the two are **correlated**: when they agree, that is weaker evidence than agreement between independent measures. Its non-overlapping contributions are the analog vote itself and the adaptive trail.

The confluence panel is not order flow

On historical bars there is no quote history, so pressure is a **model** of participation from the bar's close location and volume, not measured delta. True delta only exists on live bars, and only from the moment the panel starts listening to the tape. Anyone claiming historical bid/ask delta without a tick-replay feed is showing you a reconstruction.

It will miss reversals

By design. A first, single-leg plunge cannot be divergence-graded. A turn that never closes back out of the zone never triggers. A turn inside a strong trend without divergence stays blocked. Each of those is a deliberate trade of recall for precision.

It is a clean-room reconstruction

Range Band Pro was inspired by the behaviour of a closed-source TradingView indicator. No original source was available or used; the engine here was designed from first principles to reproduce the documented *behaviour*. Outputs will not match that tool bar-for-bar and are not intended to. TS_Confluence_Pro is an original design with no external reference.

Troubleshooting & FAQ

► **The chart is blank / nothing is drawing.**

You have fewer than ~200 bars of history. Load more data — the double EMA plus the 100-bar deviation smoothing needs that much before it will draw.

► **I have not had a single signal all session.**

Check the Trend row. If it reads RISING or FALLING, the filter is deliberately suppressing counter-trend signals — see Section 8. This is the intended behaviour in a trending session. To confirm, set Trend Filter to false on a duplicate chart and count what appears.

► **Price is deep in a zone but there is no triangle.**

The signal is the **exit**, not the entry. Nothing prints until a bar closes back out past the zone edge — Section 6.

► **The panel says "Last: ▲ BULL REVERSAL" but Session shows 0/0.**

Correct and normal. Last is all-history; Session resets at session start. See Section 16.

► **I got a green arrow while the Trend row said FALLING.**

That is the v1.1.1 divergence override, and it will always carry a white ring. Section 11 explains it; Technique 3 explains how to trade it. Set **Divergence Overrides Trend Filter** to false to disable.

Troubleshooting & FAQ

► **Compile errors after copying a new version in.**

Delete the old .cs file first, then copy the new one. NinjaTrader appends a generated-code region to the file and a stale one causes errors unrelated to the actual code.

► **An FVG box vanished.**

Working as intended — price traded back through it, or it reached Max Age. Only unfilled, recent gaps are ever drawn.

► **Can I run it on two timeframes at once?**

Yes — add it to two charts. A higher-timeframe Trend row makes an excellent regime filter for lower-timeframe entries.

► **Does it repaint?**

No. Every decision is made on closed bars. On OnEachTick the engine evaluates at an offset of one bar so that intrabar movement never creates or removes a marker.

► **The confluence panel is unreadable / the axis shows tiny numbers.**

Make sure you are on v1.0.0 or later and that the panel is at least ~90px tall — 240px is the recommended height. See Section 27.

► **The panel says NO TRADE almost all the time.**

Correct — it is NO TRADE roughly 43% of bars by design. It is a veto tool, not a signal generator. Trade the band's triangles and let the panel decide your size.

► **Should I wait for READY LONG before buying a band ▲?**

No. That is the single most common mistake with this pairing. At a bottom the score is legitimately still negative — requiring a positive score costs you 71% of the signals. Section 34 has the numbers.

► **An absorption diamond printed but no triangle followed.**

Then there was no trade. Absorption says the extreme is being resisted; the band's triangle says price actually turned. Without the second, the first was resisted in turn.

► **My Pressure Src row never says BID/ASK DELTA.**

It only flips once live ticks price a bar — historical and playback bars have no quote history. On a quiet instrument it can take a while. The price-volume model is a good proxy in the meantime.

► **What are the orange rings on my candles?**

Band-touch markers — they ring the wick of the bar that reached the band. From v1.2.0 only the extreme bar of each touch run is ringed, so a flush produces one marker rather than a wall of them.

► **A gold starburst appeared on the price chart. What is it?**

A capitulation reversal — a flush that closed beyond the band on expanding range and heavy volume, then snapped back inside. It is a different signal type from the triangles and is traded differently: half size, stop below the flush low, first target the band. Its thresholds are uncalibrated by default.

► **Why did the long parameter text at the top of my chart disappear?**

Deliberate. That label used to print every input including the licence key. It is now a clean product name and version.

► **The capitulation signal never fires / fires constantly.**

Its two thresholds are unvalidated guesses. Turn the full panel on and read the CAPITULATION CALIBRATION rows for a few sessions, then set them from what your market actually produces.

► **Where did the PRESSURE / MOMENTUM / HTF BIAS rows go?**

Removed in Confluence v1.0.2 because they were unreadable. Pressure and momentum are now lines inside the score panel, and HTF bias is the background tint — a red wash means both higher timeframes are falling. The colour key bottom-left carries the live values.

Troubleshooting & FAQ

► **Should I take ML RSI's ▲ / ▼ markers as entries?**

Not in this system. The band owns entries. ML RSI contributes the analog vote as corroboration and the Supertrend as a trade manager — adding a correlated second entry trigger just increases trade count.

► **My candles have two different colourings fighting each other.**

Turn **Paint Bars** off in ML RSI. The Range Band already paints candles on a band touch.

► **A chart with all three feels slow.**

ML RSI is the heavy one — a k-NN search over a 500-bar memory bank every bar. Lower `Max Bars To Calculate` before changing anything else.

► **Which setting should I change first?**

On the band, **Trend Slope Threshold**. On the confluence, **Score Threshold** — it is the level at which a veto becomes hard, so raising it makes the panel less interventionist. Leave everything else alone until you have a feel for both.

Changelog

TS_ML_RSI_Pro

Version	Changes
1.0.1	Security: licence key removed from the chart label; the parameter dump is replaced by a clean product name and version.
1.0.0	Initial release. Eight-feature RSI fingerprint, ring-buffer memory bank with ATR-graded outcomes, weighted Lorentzian k-NN analog vote, Fisher-discriminant auto weight optimiser, Rank / Confidence gating, conviction-adaptive ML Supertrend, Oscillator and Overlay display modes.

TS_Confluence_Pro

Version	Changes
1.0.2	The component ribbon is gone. Field feedback, and correct: at one or two pixels per bar the three per-bar heatmap rows were texture, not information, and no decision could be made from them. Each component is now displayed in the form that suits its behaviour — PRESSURE and MOMENTUM as lines on the score's own scale (both can turn before the composite does, which a coloured cell can never show), and HTF BIAS as an ambient background tint (it is a step function whose only job is regime context). A live colour key replaces the row labels, and the panel reclaims the ~38px the ribbon was reserving, so the score gets the full height.
1.0.1	Panel layout rebuilt in device pixels — the scale is now stated explicitly via <code>OnCalculateMinMax</code> (NT8 skips transparent plots when it autoscales, which collapsed the axis and pushed every bar off-screen). The status strip gets its own reserved band clear of NT8's label, ribbon rows gained dark label plates, the histogram becomes a continuous field when bars are denser than ~3px, and the layout is correct at any panel height. Security: licence key removed from the chart label.
1.0.0	Initial release. Composite conviction score from participation pressure (live bid/ask delta with a volume-weighted close-position fallback), RSI momentum with rate of turn, and two-timeframe HTF bias. Absorption detector, volatility-state row, component ribbon, horizontal status strip, five-state machine with alerts. Series exposed for strategies.

Changelog

TS_Range_Band_Pro

Version	Changes
1.2.0	Capitulation Reversal detector — a separate signal for a flush that closes beyond the band on expanding range and heavy volume then snaps back inside; bypasses the Trend Filter and divergence requirement by design, marked with a yellow star. Thresholds ship uncalibrated with a live CAPITULATION CALIBRATION readout in the full panel. Band-touch rings now mark only the extreme bar of each touch run. New series CapitulationSignal.
1.1.3	Security. The licence key no longer reaches the chart label — the property is excluded from NT8's input registration, and DisplayName is overridden so the panel label is a clean product name instead of a dump of every parameter.
1.1.2	Band-touch candle colouring and alert. Candles that reach the band are repainted with separate upper/lower colours and return to normal automatically when they do not; Touch Reference selects the band line or the zone edge. The touch alert fires at most once per candle however many ticks touch, with a user-selectable .wav, plus an optional visual flash and banner. New series BandTouch.
1.1.1	Divergence override of the Trend Filter. A divergence-backed setup may now fire against the trend state, recovering strong V-reversals the slope filter blocked; plain signals still require FLAT or an aligned trend. Every counter-trend signal is grade-2 by construction. New setting: Divergence Overrides Trend Filter (default on).
1.1.0	Signal-quality engine. Basis trend state (RISING / FLAT / FALLING) with a panel row. Trend Filter. One Signal Per Rotation. RSI(14) divergence grading with the white ring and STRONG alerts. Optional hard divergence gate and volume filter. New series: TrendState, SignalGrade.
1.0.1	FVG lifecycle rework — filled and aged gaps are removed rather than faded, default Max Age 100. Band price tags anchored at the line ends. Signal size and colour settings. Compact panel became the default.
1.0.0	Initial release — adaptive bands, OB/OS zones with occupancy highlighting, midline, zone-exit reversal signals, Range Levels, FVG boxes, liquidity ranges, statistics panel.

Upgrading

Delete the previous .cs before copying a new version in. Your chart template settings are preserved; new settings take their defaults, which are the recommended values.



TRADERSUITE

Range Band Pro · Confluence Pro ML RSI Pro

A band touch is not a trade. A close back out of the zone, in a regime that permits it, is — and the confluence decides how much of it you take.

Trading futures and derivatives carries substantial risk of loss and is not suitable for every investor. Past performance is not indicative of future results. This indicator is an analysis tool, not investment advice, and no representation is made that any account will achieve profits or losses similar to those discussed. Test on simulated data before trading it live.

Band v1.2.0

ML RSI v1.0.1

Confluence v1.0.2

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