MASTER METHODOLOGY ENCYCLOPEDIA

Crossovers Scanner

Volume 3 · Ichimoku / SuperTrend / SAR / Trend Systems · CR-081 to CR-120

Forty methodologies covering trend-system crossovers — Ichimoku Kinko Hyo (10), SuperTrend family (10), Parabolic SAR family (10), and adaptive trend systems (10). All four families produce single-signal trend confirmation; the differences are in lag, smoothing, and noise-handling characteristics.

ENROLLED-STUDENT EDITION

ABOUT THIS VOLUME

Crossovers Scanner Volume 3

This is Volume 3 of the Crossovers Scanner category in the Master Methodology Encyclopedia. Forty methodologies, codes CR-081 to CR-120. Every methodology in the standard eight-section encyclopedia template.

SCOPE

- **Section A — Ichimoku Kinko Hyo (CR-081 to CR-090)** — Goichi Hosoda's five-line system. TK cross, cloud, Chikou, Kumo twist.
- **Section B — SuperTrend (CR-091 to CR-100)** — Olivier Seban's ATR-based flipping system. Default and dual configurations.
- **Section C — Parabolic SAR family (CR-101 to CR-110)** — Welles Wilder's SAR. Default, slow, adaptive variants and composites.
- **Section D — Adaptive Trend Systems (CR-111 to CR-120)** — ZLEMA, KAMA, FRAMA, T3, McGinley, Hurst exponent.

COMPLIANCE

Every methodology is presented as education, not advice. All examples are anonymised, use a 30-day minimum data lag, and avoid specific securities. No methodology is presented as a real-time signal, recommendation, or model portfolio.

HOW TO READ

Each methodology follows the uniform eight-section template (Markets → Diagram → Formula → Formula Note → Parameters → Interpretation → Signal → Example → Mistakes → Timeframes). Use the consistent structure to compare methodologies by jumping directly to the section you need.

CR-081 · Tenkan / Kijun Cross (TK Cross)

Ichimoku
Foundation - Ichimoku core

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
Tenkan-sen (9)   ■■■■■■
Kijun-sen (26)   ■■■■■■
Senkou A         ■■■■■■  ■
Senkou B         ■■■■■■  ■ Cloud (Kumo)
Chikou (lag 26)  ■■■■■■
```

3 · FORMULA

```
Cross: Tenkan(t) > Kijun(t) AND Tenkan(t-1) <= Kijun(t-1)
```

4 · FORMULA NOTE

The Ichimoku TK cross is the system's primary momentum trigger. Equivalent in spirit to a fast/slow MA cross but with Goichi Hosoda's specific period logic.

5 · PARAMETERS

Parameter	Default	Range	Notes
Tenkan period	9	7-13	Conversion line
Kijun period	26	21-34	Base line
Senkou B	52	42-72	Leading span B
Source	HL/2	HL2	Median price

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; Tenkan / Kijun Cross (TK Cross) fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.

- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

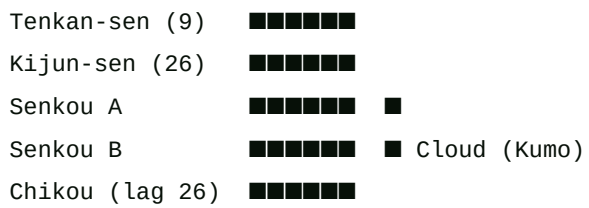
CR-082 · Price / Cloud (Kumo) Cross

Ichimoku
Foundation - Cloud regime

1 · MARKETS

All liquid markets.

2 · DIAGRAM



3 · FORMULA

```
Cross: Close > max(Senkou A, Senkou B) AND Close <= max prior
```

4 · FORMULA NOTE

Crossing above the cloud transitions Ichimoku regime from bearish to neutral-bullish; the strongest single signal in the system.

5 · PARAMETERS

Parameter	Default	Range	Notes
Tenkan period	9	7-13	Conversion line
Kijun period	26	21-34	Base line
Senkou B	52	42-72	Leading span B
Source	HL/2	HL2	Median price

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; Price / Cloud (Kumo) Cross fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.

- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

CR-083 · Kijun-Sen Bounce Cross

Ichimoku
Foundation - Pullback entry

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
Tenkan-sen (9)   ■■■■■■
Kijun-sen (26)   ■■■■■■
Senkou A         ■■■■■■  ■
Senkou B         ■■■■■■  ■ Cloud (Kumo)
Chikou (lag 26)  ■■■■■■
```

3 · FORMULA

```
Cross: Close > Kijun after pullback AND prior bar Close < Kijun
```

4 · FORMULA NOTE

After uptrend, pullback to Kijun and bounce produces high-probability continuation entry.

5 · PARAMETERS

Parameter	Default	Range	Notes
Tenkan period	9	7-13	Conversion line
Kijun period	26	21-34	Base line
Senkou B	52	42-72	Leading span B
Source	HL/2	HL2	Median price

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; Kijun-Sen Bounce Cross fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.
- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

CR-084 · Chikou Span Cross

Ichimoku
Stage 2 - Lag confirmation

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
Tenkan-sen (9)   ■■■■■■
Kijun-sen (26)   ■■■■■■
Senkou A         ■■■■■■  ■
Senkou B         ■■■■■■  ■ Cloud (Kumo)
Chikou (lag 26)  ■■■■■■
```

3 · FORMULA

```
Cross: Chikou(t) > Close(t-26) AND prior <=
```

4 · FORMULA NOTE

The Chikou span (lagging line) crossing past historical price marks regime confirmation 26 bars after the underlying move.

5 · PARAMETERS

Parameter	Default	Range	Notes
Tenkan period	9	7-13	Conversion line
Kijun period	26	21-34	Base line
Senkou B	52	42-72	Leading span B
Source	HL/2	HL2	Median price

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; Chikou Span Cross fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.

- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

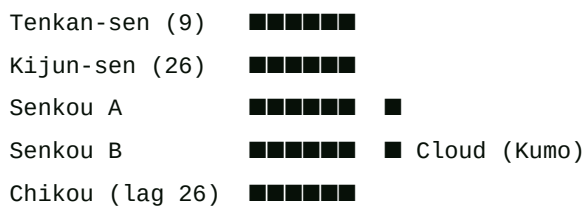
CR-085 · Senkou A / Senkou B Cross (Cloud Twist)

Ichimoku
Stage 2 - Forward cloud

1 · MARKETS

All liquid markets.

2 · DIAGRAM



3 · FORMULA

```
Cross: Senkou A(t) > Senkou B(t) AND prior <=
```

4 · FORMULA NOTE

Cloud twist (Kumo twist) projects 26 bars into the future and signals regime change in advance.

5 · PARAMETERS

Parameter	Default	Range	Notes
Tenkan period	9	7-13	Conversion line
Kijun period	26	21-34	Base line
Senkou B	52	42-72	Leading span B
Source	HL/2	HL2	Median price

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; Senkou A / Senkou B Cross (Cloud Twist) fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.

- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

CR-086 · Three-Line Strike Ichimoku

Ichimoku
Stage 3 - Composite

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
Tenkan-sen (9)   ■■■■■■
Kijun-sen (26)   ■■■■■■
Senkou A         ■■■■■■  ■
Senkou B         ■■■■■■  ■ Cloud (Kumo)
Chikou (lag 26)  ■■■■■■
```

3 · FORMULA

```
Composite: TK cross AND Price > Cloud AND Chikou clear
```

4 · FORMULA NOTE

Three-fold confirmation: all three Ichimoku elements agree. Highest-conviction Ichimoku setup.

5 · PARAMETERS

Parameter	Default	Range	Notes
Tenkan period	9	7-13	Conversion line
Kijun period	26	21-34	Base line
Senkou B	52	42-72	Leading span B
Source	HL/2	HL2	Median price

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; Three-Line Strike Ichimoku fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.
- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

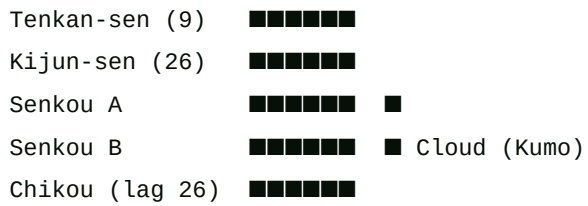
CR-087 · Cloud Edge Bounce Cross

Ichimoku
Stage 2 - Cloud retest

1 · MARKETS

All liquid markets.

2 · DIAGRAM



3 · FORMULA

```
Cross: Close bounces off cloud edge (top in uptrend, bottom in downtrend)
```

4 · FORMULA NOTE

After cloud breakout, retest of cloud edge that holds is a continuation entry.

5 · PARAMETERS

Parameter	Default	Range	Notes
Tenkan period	9	7-13	Conversion line
Kijun period	26	21-34	Base line
Senkou B	52	42-72	Leading span B
Source	HL/2	HL2	Median price

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; Cloud Edge Bounce Cross fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.
- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

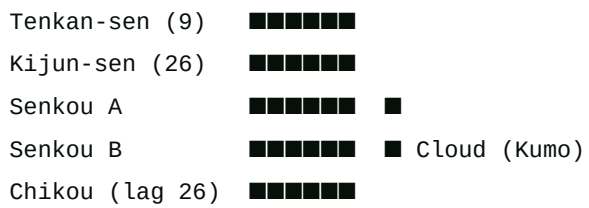
CR-088 · Cloud Thickness Cross

Ichimoku
Stage 3 - Volatility regime

1 · MARKETS

All liquid markets.

2 · DIAGRAM



3 · FORMULA

```
Cross: |Senkou A - Senkou B| > SMA(thickness, 50)
```

4 · FORMULA NOTE

Cloud thickness expansion crossing its long average flags volatility regime change.

5 · PARAMETERS

Parameter	Default	Range	Notes
Tenkan period	9	7-13	Conversion line
Kijun period	26	21-34	Base line
Senkou B	52	42-72	Leading span B
Source	HL/2	HL2	Median price

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; Cloud Thickness Cross fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.
- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

CR-089 · Flat Kijun Cross

Ichimoku
Stage 3 - Equilibrium

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
Tenkan-sen (9)   ■■■■■■
Kijun-sen (26)   ■■■■■■
Senkou A         ■■■■■■  ■
Senkou B         ■■■■■■  ■ Cloud (Kumo)
Chikou (lag 26)  ■■■■■■
```

3 · FORMULA

```
Cross: Slope(Kijun, 5) ~ 0 AND Close > Kijun
```

4 · FORMULA NOTE

Flat Kijun acts as horizontal magnet; cross above flat Kijun is a stronger break than during sloping Kijun.

5 · PARAMETERS

Parameter	Default	Range	Notes
Tenkan period	9	7-13	Conversion line
Kijun period	26	21-34	Base line
Senkou B	52	42-72	Leading span B
Source	HL/2	HL2	Median price

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; Flat Kijun Cross fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.
- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

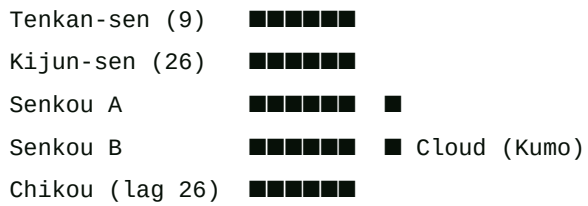
CR-090 · Ichimoku Stop Cross

Ichimoku
Stage 2 - Trailing exit

1 · MARKETS

All liquid markets.

2 · DIAGRAM



3 · FORMULA

```
Trail: Kijun-sen; Cross: Close < Kijun for 2 consecutive bars
```

4 · FORMULA NOTE

Kijun-sen as systematic trailing-stop placement. Original Hosoda exit rule.

5 · PARAMETERS

Parameter	Default	Range	Notes
Tenkan period	9	7-13	Conversion line
Kijun period	26	21-34	Base line
Senkou B	52	42-72	Leading span B
Source	HL/2	HL2	Median price

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; Ichimoku Stop Cross fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.
- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

CR-091 · SuperTrend Cross (default 10/3)

SuperTrend
Foundation - Trailing trend

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
SuperTrend Up    ■■■■■
Price             ■■■■
SuperTrend Dn    ■■■■  (flip when price crosses)
```

3 · FORMULA

```
Cross: Close > SuperTrend AND prior bar Close <= SuperTrend
```

4 · FORMULA NOTE

SuperTrend (Olivier Seban) is an ATR-based trend-follower that flips on close-vs-line crosses. Fewer parameters than most trend systems.

5 · PARAMETERS

Parameter	Default	Range	Notes
ATR period	10	7-14	ATR lookback
Multiplier	3.0	2.0-4.0	ATR scaling
Source	HL2	HL2	Median price
Mode	Standard	Standard/HL3	Calculation variant

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; SuperTrend Cross (default 10/3) fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.
- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

CR-092 · SuperTrend Cross 14/2

SuperTrend
Stage 2 - Faster variant

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
SuperTrend Up    ■■■■■
Price             ■■■■
SuperTrend Dn    ■■■■  (flip when price crosses)
```

3 · FORMULA

```
Cross with ATR=14, multiplier=2
```

4 · FORMULA NOTE

Faster SuperTrend variant; more whipsaws in chop, earlier signals in trends.

5 · PARAMETERS

Parameter	Default	Range	Notes
ATR period	10	7-14	ATR lookback
Multiplier	3.0	2.0-4.0	ATR scaling
Source	HL2	HL2	Median price
Mode	Standard	Standard/HL3	Calculation variant

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; SuperTrend Cross 14/2 fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.
- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

CR-093 · SuperTrend Cross 21/4

SuperTrend
Stage 2 - Slower variant

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
SuperTrend Up    ■■■■■
Price             ■■■■
SuperTrend Dn    ■■■■  (flip when price crosses)
```

3 · FORMULA

```
Cross with ATR=21, multiplier=4
```

4 · FORMULA NOTE

Slower SuperTrend variant; fewer whipsaws, later signals.

5 · PARAMETERS

Parameter	Default	Range	Notes
ATR period	10	7-14	ATR lookback
Multiplier	3.0	2.0-4.0	ATR scaling
Source	HL2	HL2	Median price
Mode	Standard	Standard/HL3	Calculation variant

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; SuperTrend Cross 21/4 fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.
- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

CR-094 · Dual SuperTrend Cross

SuperTrend
Stage 3 - Two-period combo

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
SuperTrend Up    ■■■■■
Price             ■■■■
SuperTrend Dn    ■■■■  (flip when price crosses)
```

3 · FORMULA

```
Cross: Both SuperTrend(10/3) AND SuperTrend(21/4) flip same direction
```

4 · FORMULA NOTE

Two-period agreement reduces false signals; institutional standard for SuperTrend systems.

5 · PARAMETERS

Parameter	Default	Range	Notes
ATR period	10	7-14	ATR lookback
Multiplier	3.0	2.0-4.0	ATR scaling
Source	HL2	HL2	Median price
Mode	Standard	Standard/HL3	Calculation variant

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; Dual SuperTrend Cross fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.
- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

CR-095 · SuperTrend / EMA Composite

SuperTrend
Stage 2 - Regime filter

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
SuperTrend Up    ■■■■■
Price             ■■■■
SuperTrend Dn    ■■■■  (flip when price crosses)
```

3 · FORMULA

```
Cross: SuperTrend flip AND Close on same side of EMA200
```

4 · FORMULA NOTE

SuperTrend with EMA200 regime filter cuts whipsaws in counter-trend conditions.

5 · PARAMETERS

Parameter	Default	Range	Notes
ATR period	10	7-14	ATR lookback
Multiplier	3.0	2.0-4.0	ATR scaling
Source	HL2	HL2	Median price
Mode	Standard	Standard/HL3	Calculation variant

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; SuperTrend / EMA Composite fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.
- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

CR-096 · SuperTrend / VWAP Cross

SuperTrend
Stage 3 - Intraday composite

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
SuperTrend Up    ■■■■■
Price             ■■■■
SuperTrend Dn    ■■■■  (flip when price crosses)
```

3 · FORMULA

```
Cross: SuperTrend flip AND Close on same side of VWAP
```

4 · FORMULA NOTE

Intraday SuperTrend with session VWAP for institutional-aware execution.

5 · PARAMETERS

Parameter	Default	Range	Notes
ATR period	10	7-14	ATR lookback
Multiplier	3.0	2.0-4.0	ATR scaling
Source	HL2	HL2	Median price
Mode	Standard	Standard/HL3	Calculation variant

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; SuperTrend / VWAP Cross fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.
- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

CR-097 · SuperTrend Slope Cross

SuperTrend
Stage 3 - Direction velocity

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
SuperTrend Up    ■■■■■
Price             ■■■■
SuperTrend Dn    ■■■■  (flip when price crosses)
```

3 · FORMULA

```
Cross: Slope(SuperTrend, 5) > 0 AND Slope(prior) <= 0
```

4 · FORMULA NOTE

SuperTrend slope direction change precedes the line cross by 1-3 bars.

5 · PARAMETERS

Parameter	Default	Range	Notes
ATR period	10	7-14	ATR lookback
Multiplier	3.0	2.0-4.0	ATR scaling
Source	HL2	HL2	Median price
Mode	Standard	Standard/HL3	Calculation variant

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; SuperTrend Slope Cross fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.
- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

CR-098 · SuperTrend Distance Cross

SuperTrend
Stage 3 - Pullback identification

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
SuperTrend Up    ■■■■■
Price             ■■■■
SuperTrend Dn    ■■■■  (flip when price crosses)
```

3 · FORMULA

```
Cross: |Close - SuperTrend| < quantile(distance, 0.20, lookback=125)
```

4 · FORMULA NOTE

Close pulling near the SuperTrend line identifies potential entry on retest.

5 · PARAMETERS

Parameter	Default	Range	Notes
ATR period	10	7-14	ATR lookback
Multiplier	3.0	2.0-4.0	ATR scaling
Source	HL2	HL2	Median price
Mode	Standard	Standard/HL3	Calculation variant

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; SuperTrend Distance Cross fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.
- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

CR-099 · SuperTrend Failure Cross

SuperTrend
Stage 3 - False-flip recovery

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
SuperTrend Up    ■■■■■
Price             ■■■■
SuperTrend Dn    ■■■■  (flip when price crosses)
```

3 · FORMULA

```
Cross: Close re-crosses SuperTrend within 3 bars of flip
```

4 · FORMULA NOTE

Failed SuperTrend flips often precede strong continuation in original direction.

5 · PARAMETERS

Parameter	Default	Range	Notes
ATR period	10	7-14	ATR lookback
Multiplier	3.0	2.0-4.0	ATR scaling
Source	HL2	HL2	Median price
Mode	Standard	Standard/HL3	Calculation variant

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; SuperTrend Failure Cross fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.
- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

CR-100 · Ehlers SuperTrend Cross

SuperTrend
Stage 3 - Adaptive variant

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
SuperTrend Up    ■■■■■
Price             ■■■■
SuperTrend Dn    ■■■■  (flip when price crosses)
```

3 · FORMULA

```
Cross with John Ehlers' adaptive ATR period
```

4 · FORMULA NOTE

Ehlers' adaptive variant adjusts ATR period to dominant cycle, reducing lag.

5 · PARAMETERS

Parameter	Default	Range	Notes
ATR period	10	7-14	ATR lookback
Multiplier	3.0	2.0-4.0	ATR scaling
Source	HL2	HL2	Median price
Mode	Standard	Standard/HL3	Calculation variant

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; Ehlers SuperTrend Cross fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.
- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

CR-101 · Parabolic SAR Cross (default)

SAR
Foundation - Wilder SAR

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
Parabolic SAR  ●●●●●●  (dots flip with trend)
Price          ■■■■■■
SAR flips on cross
```

3 · FORMULA

```
Cross: Close > SAR AND prior Close <= SAR
```

4 · FORMULA NOTE

Welles Wilder's Parabolic SAR (1978) flips on price crossing the dot. The fastest-converging trend-follower in classic TA.

5 · PARAMETERS

Parameter	Default	Range	Notes
Acceleration	0.02	0.01-0.05	Initial AF
Maximum	0.20	0.10-0.30	Max AF
Source	HL	HL	High/Low
Confirmation	Close	Close/Wick	Cross definition

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; Parabolic SAR Cross (default) fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.
- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

CR-102 · Parabolic SAR Slow Cross

SAR
Stage 2 - Smoother variant

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
Parabolic SAR  ●●●●●●  (dots flip with trend)
Price          ■■■■■■
SAR flips on cross
```

3 · FORMULA

```
Cross with AF=0.01, max=0.10
```

4 · FORMULA NOTE

Slower SAR; fewer whipsaws, later signals.

5 · PARAMETERS

Parameter	Default	Range	Notes
Acceleration	0.02	0.01-0.05	Initial AF
Maximum	0.20	0.10-0.30	Max AF
Source	HL	HL	High/Low
Confirmation	Close	Close/Wick	Cross definition

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; Parabolic SAR Slow Cross fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.
- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

CR-103 · SAR / EMA Composite

SAR
Stage 2 - Regime filter

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
Parabolic SAR  ●●●●●●  (dots flip with trend)
Price          ■■■■■■
SAR flips on cross
```

3 · FORMULA

```
Cross: SAR flip AND Close on same side of EMA200
```

4 · FORMULA NOTE

SAR with regime filter cuts whipsaws in chop.

5 · PARAMETERS

Parameter	Default	Range	Notes
Acceleration	0.02	0.01-0.05	Initial AF
Maximum	0.20	0.10-0.30	Max AF
Source	HL	HL	High/Low
Confirmation	Close	Close/Wick	Cross definition

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; SAR / EMA Composite fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.
- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

CR-104 · SAR / Volume Cross

SAR
Stage 3 - Volume-confirmed

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
Parabolic SAR  ●●●●●●  (dots flip with trend)
Price          ■■■■■■
SAR flips on cross
```

3 · FORMULA

```
Cross: SAR flip AND Volume > 1.5*SMA(Volume, 20)
```

4 · FORMULA NOTE

SAR flips on above-average volume produce higher-conviction signals.

5 · PARAMETERS

Parameter	Default	Range	Notes
Acceleration	0.02	0.01-0.05	Initial AF
Maximum	0.20	0.10-0.30	Max AF
Source	HL	HL	High/Low
Confirmation	Close	Close/Wick	Cross definition

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; SAR / Volume Cross fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.
- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

CR-105 · SAR Distance Cross

SAR
Stage 3 - Tight retest

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
Parabolic SAR  ●●●●●●  (dots flip with trend)
Price          ■■■■■■
SAR flips on cross
```

3 · FORMULA

```
Cross: |Close - SAR| < 0.5*ATR
```

4 · FORMULA NOTE

Tight retest of SAR signals continuation candidate.

5 · PARAMETERS

Parameter	Default	Range	Notes
Acceleration	0.02	0.01-0.05	Initial AF
Maximum	0.20	0.10-0.30	Max AF
Source	HL	HL	High/Low
Confirmation	Close	Close/Wick	Cross definition

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; SAR Distance Cross fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.
- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

CR-106 · SAR / RSI Combined Cross

SAR
Stage 3 - Multi-indicator

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
Parabolic SAR  ●●●●●●  (dots flip with trend)
Price          ■■■■■■
SAR flips on cross
```

3 · FORMULA

```
Cross: SAR flip AND RSI > 50 (for longs)
```

4 · FORMULA NOTE

SAR with RSI bias filter cuts low-quality flips.

5 · PARAMETERS

Parameter	Default	Range	Notes
Acceleration	0.02	0.01-0.05	Initial AF
Maximum	0.20	0.10-0.30	Max AF
Source	HL	HL	High/Low
Confirmation	Close	Close/Wick	Cross definition

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; SAR / RSI Combined Cross fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.
- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

CR-107 · Adaptive SAR Cross

SAR
Stage 3 - Dynamic AF

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
Parabolic SAR  ●●●●●●  (dots flip with trend)
Price          ■■■■■■
SAR flips on cross
```

3 · FORMULA

```
Cross with AF dynamically scaled to recent volatility
```

4 · FORMULA NOTE

Adaptive SAR variants self-adjust to changing volatility regimes.

5 · PARAMETERS

Parameter	Default	Range	Notes
Acceleration	0.02	0.01-0.05	Initial AF
Maximum	0.20	0.10-0.30	Max AF
Source	HL	HL	High/Low
Confirmation	Close	Close/Wick	Cross definition

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; Adaptive SAR Cross fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.
- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

CR-108 · SAR Pullback Cross

SAR
Stage 3 - Counter-trend bounce

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
Parabolic SAR  ●●●●●●  (dots flip with trend)
Price          ■■■■■■
SAR flips on cross
```

3 · FORMULA

```
Cross: SAR flip after 3+ bar pullback in confirmed trend
```

4 · FORMULA NOTE

Pullback-then-SAR-flip is high-quality continuation entry.

5 · PARAMETERS

Parameter	Default	Range	Notes
Acceleration	0.02	0.01-0.05	Initial AF
Maximum	0.20	0.10-0.30	Max AF
Source	HL	HL	High/Low
Confirmation	Close	Close/Wick	Cross definition

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; SAR Pullback Cross fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.
- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

CR-109 · SAR Multi-timeframe Cross

SAR
Stage 3 - MTF alignment

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
Parabolic SAR  ●●●●●●  (dots flip with trend)
Price          ■■■■■■
SAR flips on cross
```

3 · FORMULA

```
Cross: Daily SAR flip AND Weekly SAR same direction
```

4 · FORMULA NOTE

Multi-timeframe SAR alignment for high-conviction longer-term entries.

5 · PARAMETERS

Parameter	Default	Range	Notes
Acceleration	0.02	0.01-0.05	Initial AF
Maximum	0.20	0.10-0.30	Max AF
Source	HL	HL	High/Low
Confirmation	Close	Close/Wick	Cross definition

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; SAR Multi-timeframe Cross fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.
- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

CR-110 · SAR Stop Cross

SAR
Stage 2 - Trailing exit

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
Parabolic SAR  ●●●●●●  (dots flip with trend)
Price          ■■■■■■
SAR flips on cross
```

3 · FORMULA

```
Trail: SAR; Cross: Close < SAR (for longs)
```

4 · FORMULA NOTE

SAR as systematic trailing-stop placement.

5 · PARAMETERS

Parameter	Default	Range	Notes
Acceleration	0.02	0.01-0.05	Initial AF
Maximum	0.20	0.10-0.30	Max AF
Source	HL	HL	High/Low
Confirmation	Close	Close/Wick	Cross definition

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; SAR Stop Cross fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.
- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

CR-111 · ZLEMA Cross (Zero-Lag EMA)

Trend systems
Stage 2 - Zero-lag

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
Trend Indicator  ■■■■■
Reference Line   ■■■■■■
Cross signals regime
```

3 · FORMULA

```
Cross: ZLEMA fast > ZLEMA slow
```

4 · FORMULA NOTE

Ehlers' Zero-Lag EMA reduces lag relative to EMA, useful for cleanly trending markets.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	10-50	Lookback
Source	Close	Close/HL2	Price source
Confirmation	1 bar	1-3	Persistence
Filter	Optional	On/Off	Regime overlay

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; ZLEMA Cross (Zero-Lag EMA) fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.
- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

CR-112 · Linear Regression Slope Cross

Trend systems
Stage 2 - LR slope

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
Trend Indicator  ■■■■■
Reference Line   ■■■■■■
Cross signals regime
```

3 · FORMULA

```
Cross: LR_Slope(N) > 0 AND prior <= 0
```

4 · FORMULA NOTE

Linear regression slope crossing zero marks trend pivot.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	10-50	Lookback
Source	Close	Close/HL2	Price source
Confirmation	1 bar	1-3	Persistence
Filter	Optional	On/Off	Regime overlay

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; Linear Regression Slope Cross fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.
- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

CR-113 · KAMA (Kaufman Adaptive MA) Cross

Trend systems
Stage 3 - Adaptive

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
Trend Indicator  ■■■■■
Reference Line   ■■■■■■
Cross signals regime
```

3 · FORMULA

```
Cross: Close > KAMA AND prior <=
```

4 · FORMULA NOTE

Perry Kaufman's Adaptive MA self-adjusts smoothing based on efficiency ratio.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	10-50	Lookback
Source	Close	Close/HL2	Price source
Confirmation	1 bar	1-3	Persistence
Filter	Optional	On/Off	Regime overlay

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; KAMA (Kaufman Adaptive MA) Cross fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.
- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

CR-114 · FRAMA (Fractal Adaptive MA) Cross

Trend systems
Stage 3 - Fractal

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
Trend Indicator  ■■■■■
Reference Line   ■■■■■■
Cross signals regime
```

3 · FORMULA

```
Cross: Close > FRAMA
```

4 · FORMULA NOTE

John Ehlers' Fractal Adaptive MA uses fractal dimension to adjust smoothing.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	10-50	Lookback
Source	Close	Close/HL2	Price source
Confirmation	1 bar	1-3	Persistence
Filter	Optional	On/Off	Regime overlay

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; FRAMA (Fractal Adaptive MA) Cross fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.
- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

CR-115 · HMA / WMA Cross

Trend systems
Stage 2 - Hull/weighted

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
Trend Indicator  ■■■■■
Reference Line   ■■■■■■
Cross signals regime
```

3 · FORMULA

```
Cross: HMA > WMA
```

4 · FORMULA NOTE

Hull MA over Weighted MA combines lag reduction with traditional smoothing.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	10-50	Lookback
Source	Close	Close/HL2	Price source
Confirmation	1 bar	1-3	Persistence
Filter	Optional	On/Off	Regime overlay

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; HMA / WMA Cross fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.
- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

CR-116 · McGinley Dynamic Cross

Trend systems
Stage 3 - McGinley

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
Trend Indicator  ■■■■■
Reference Line   ■■■■■■
Cross signals regime
```

3 · FORMULA

```
Cross: Close > McGinley
```

4 · FORMULA NOTE

John McGinley's adaptive MA adjusts to price velocity.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	10-50	Lookback
Source	Close	Close/HL2	Price source
Confirmation	1 bar	1-3	Persistence
Filter	Optional	On/Off	Regime overlay

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; McGinley Dynamic Cross fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.
- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

CR-117 · Tilson T3 Cross

Trend systems
Stage 3 - Tilson

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
Trend Indicator  ■■■■■
Reference Line   ■■■■■■
Cross signals regime
```

3 · FORMULA

```
Cross: T3 fast > T3 slow
```

4 · FORMULA NOTE

Tim Tillson's T3 is a triple-smoothed adaptive MA with reduced lag.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	10-50	Lookback
Source	Close	Close/HL2	Price source
Confirmation	1 bar	1-3	Persistence
Filter	Optional	On/Off	Regime overlay

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; Tilson T3 Cross fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.
- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

CR-118 · Volatility Index Cross

Trend systems
Stage 3 - VIX-based

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
Trend Indicator  ■■■■■
Reference Line   ■■■■■■
Cross signals regime
```

3 · FORMULA

```
Cross: VIX < SMA(VIX, 20) AND prior >=
```

4 · FORMULA NOTE

Falling VIX through its mean signals risk-on regime; rising signals risk-off.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	10-50	Lookback
Source	Close	Close/HL2	Price source
Confirmation	1 bar	1-3	Persistence
Filter	Optional	On/Off	Regime overlay

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; Volatility Index Cross fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.
- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

CR-119 · Hurst Exponent Cross

Trend systems
Stage 3 - Trend persistence

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
Trend Indicator  ■■■■■
Reference Line   ■■■■■■
Cross signals regime
```

3 · FORMULA

```
Cross: Hurst(N) > 0.5 AND prior <= 0.5
```

4 · FORMULA NOTE

Hurst exponent above 0.5 implies trending market; below implies mean-reverting. Cross marks regime shift.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	10-50	Lookback
Source	Close	Close/HL2	Price source
Confirmation	1 bar	1-3	Persistence
Filter	Optional	On/Off	Regime overlay

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; Hurst Exponent Cross fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.
- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.

CR-120 · Composite Trend Strength Cross

Trend systems
Stage 3 - Multi-factor

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
Trend Indicator  ■■■■■
Reference Line   ■■■■■■
Cross signals regime
```

3 · FORMULA

```
Cross: (ADX > 20) AND (Aroon Up > 70) AND (Price > EMA200)
```

4 · FORMULA NOTE

Multi-factor trend-strength composite. All three conditions firing simultaneously is rare and high-conviction.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	10-50	Lookback
Source	Close	Close/HL2	Price source
Confirmation	1 bar	1-3	Persistence
Filter	Optional	On/Off	Regime overlay

6 · INTERPRETATION

- Trend-system signals; pair with regime context for best results.
- First confirmation after extended absence is highest-quality.
- Volume confirmation strengthens the signal.
- Stop placement is structural, not at the indicator line itself.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Higher-timeframe regime aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical liquid market; Composite Trend Strength Cross fired during a clean trend phase with volume confirmation. (Anonymised, 30-day data lag.)

COMMON MISTAKES

- Treating the cross as a stand-alone entry signal with no regard for trend context.
- Using too-tight stops at the cross point — typical noise will trigger them.
- Position sizing identically across regimes — high-volatility crosses need smaller size.
- Ignoring volume confirmation on the cross bar.
- Backtesting only winners and dismissing losers as 'unusual'.

RECOMMENDED TIMEFRAMES

Daily and weekly primary.