MASTER METHODOLOGY ENCYCLOPEDIA

Crossovers Scanner

Volume 2 · Bollinger / Keltner / Donchian / Channel-based · CR-041 to CR-080

Forty methodologies covering channel-based crossovers — Bollinger Bands, Keltner Channels, Donchian Channels, linear regression channels, pivot points, Vortex Indicator, and composite channel methodologies. Volatility-aware by construction; regime-filter ready out of the box.

ENROLLED-STUDENT EDITION

ABOUT THIS VOLUME

Crossovers Scanner Volume 2

This is Volume 2 of the Crossovers Scanner category in the Master Methodology Encyclopedia. Forty methodologies, codes CR-041 to CR-080. Every methodology in the standard eight-section encyclopedia template.

SCOPE

- **Section A — Bollinger Band Crossovers (CR-041 to CR-050)** — Std-dev bands, %B, bandwidth, squeeze release.
- **Section B — Keltner Channel Crossovers (CR-051 to CR-060)** — ATR-based channels, mid-line slope, outer-band tags.
- **Section C — Donchian Channel Crossovers (CR-061 to CR-070)** — Turtle System rules, multi-period stacks, compression breaks.
- **Section D — Channel & Composite Crossovers (CR-071 to CR-080)** — LRC, pivot, ATR stop, Vortex, composite mid.

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-041 · Price / Bollinger Upper Cross

Bollinger Band Crossovers
Foundation - Volatility breakout

1 · MARKETS

All liquid markets with reliable price history.

2 · DIAGRAM

```
Upper Band  ■■■■■■■■■■
Mid (SMA)   ■■■■■■■■■■
Lower Band  ■■■■■■■■■■
Price oscillates between bands; crosses signal regime
```

3 · FORMULA

```
Upper(t) = SMA20(t) + 2 * StdDev20(t); Cross: Close(t) > Upper(t) AND Close(t-1) <= Uppe
r(t-1)
```

4 · FORMULA NOTE

Price closing above the upper Bollinger band signals momentum extension or volatility expansion. Bollinger Bands (John Bollinger, 1980s) measure 2 standard deviations from a 20-period SMA. The bands self-adjust to volatility, making them universal across instruments.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	10-50	Lookback
Source	Close	Close/HL2	Price source
Confirmation	1 bar	1-3 bars	Persistence
Min separation	0.5 ATR	0.25-1 ATR	Minimum cross gap

6 · INTERPRETATION

- Bands self-scale to recent volatility.
- %B normalises Bollinger reading to 0-1 range.
- Pair with regime filter to avoid chop-region whipsaws.
- First touch of an outer band after extended absence is the highest-quality.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume on the cross bar above 20-day average.
- Higher-timeframe regime aligned (or explicitly counter-trend mean-reversion thesis).
- Stop: structural swing point; target: prior level or 1.5R+.

8 · EXAMPLE

Hypothetical large-cap equity in confirmed uptrend; Price / Bollinger Upper Cross fired on a pullback retest of the mid-band 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 4H most common; 1H for active intraday.

CR-042 · Price / Bollinger Lower Cross

Bollinger Band Crossovers
Foundation - Volatility extension

1 · MARKETS

All liquid markets with reliable price history.

2 · DIAGRAM

```
Upper Band  ■■■■■■■■■■
Mid (SMA)   ■■■■■■■■■■
Lower Band  ■■■■■■■■■■
Price oscillates between bands; crosses signal regime
```

3 · FORMULA

```
Lower(t) = SMA20(t) - 2 * StdDev20(t); Cross: Close(t) < Lower(t) AND Close(t-1) >= Lowe
r(t-1)
```

4 · FORMULA NOTE

Price closing below the lower Bollinger band signals momentum extension or volatility expansion to the downside. Bollinger Bands (John Bollinger, 1980s) measure 2 standard deviations from a 20-period SMA. The bands self-adjust to volatility, making them universal across instruments.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	10-50	Lookback
Source	Close	Close/HL2	Price source
Confirmation	1 bar	1-3 bars	Persistence
Min separation	0.5 ATR	0.25-1 ATR	Minimum cross gap

6 · INTERPRETATION

- Bands self-scale to recent volatility.
- %B normalises Bollinger reading to 0-1 range.
- Pair with regime filter to avoid chop-region whipsaws.
- First touch of an outer band after extended absence is the highest-quality.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume on the cross bar above 20-day average.
- Higher-timeframe regime aligned (or explicitly counter-trend mean-reversion thesis).
- Stop: structural swing point; target: prior level or 1.5R+.

8 · EXAMPLE

Hypothetical large-cap equity in confirmed uptrend; Price / Bollinger Lower Cross fired on a pullback retest of the mid-band 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 4H most common; 1H for active intraday.

CR-043 · Price / Bollinger Mid-Line Cross

Bollinger Band Crossovers
Foundation - Trend bias

1 · MARKETS

All liquid markets with reliable price history.

2 · DIAGRAM

```
Upper Band  ■■■■■■■■■■
Mid (SMA)   ■■■■■■■■■■
Lower Band  ■■■■■■■■■■
Price oscillates between bands; crosses signal regime
```

3 · FORMULA

```
Mid(t) = SMA20(t); Cross: Close(t) > Mid(t) AND Close(t-1) <= Mid(t-1)
```

4 · FORMULA NOTE

Price crossing the mid-line (SMA20) of the Bollinger system marks short-term trend bias. Bollinger Bands (John Bollinger, 1980s) measure 2 standard deviations from a 20-period SMA. The bands self-adjust to volatility, making them universal across instruments.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	10-50	Lookback
Source	Close	Close/HL2	Price source
Confirmation	1 bar	1-3 bars	Persistence
Min separation	0.5 ATR	0.25-1 ATR	Minimum cross gap

6 · INTERPRETATION

- Bands self-scale to recent volatility.
- %B normalises Bollinger reading to 0-1 range.
- Pair with regime filter to avoid chop-region whipsaws.
- First touch of an outer band after extended absence is the highest-quality.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume on the cross bar above 20-day average.
- Higher-timeframe regime aligned (or explicitly counter-trend mean-reversion thesis).
- Stop: structural swing point; target: prior level or 1.5R+.

8 · EXAMPLE

Hypothetical large-cap equity in confirmed uptrend; Price / Bollinger Mid-Line Cross fired on a pullback retest of the mid-band 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 4H most common; 1H for active intraday.

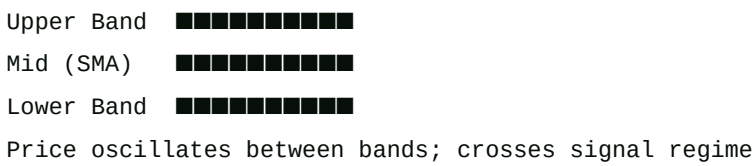
CR-044 · Bollinger Band Squeeze Release

Bollinger Band Crossovers
Stage 2 - Volatility expansion

1 · MARKETS

All liquid markets with reliable price history.

2 · DIAGRAM



3 · FORMULA

```
Squeeze: Bandwidth(t) < quantile(Bandwidth, 0.20, lookback=125); Release: Bandwidth expanding AND Close > Mid
```

4 · FORMULA NOTE

After a volatility contraction (squeeze), the band release direction often persists for several bars. Bollinger Bands (John Bollinger, 1980s) measure 2 standard deviations from a 20-period SMA. The bands self-adjust to volatility, making them universal across instruments.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	10-50	Lookback
Source	Close	Close/HL2	Price source
Confirmation	1 bar	1-3 bars	Persistence
Min separation	0.5 ATR	0.25-1 ATR	Minimum cross gap

6 · INTERPRETATION

- Bands self-scale to recent volatility.
- %B normalises Bollinger reading to 0-1 range.
- Pair with regime filter to avoid chop-region whipsaws.
- First touch of an outer band after extended absence is the highest-quality.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume on the cross bar above 20-day average.
- Higher-timeframe regime aligned (or explicitly counter-trend mean-reversion thesis).
- Stop: structural swing point; target: prior level or 1.5R+.

8 · EXAMPLE

Hypothetical large-cap equity in confirmed uptrend; Bollinger Band Squeeze Release fired on a pullback retest of the mid-band 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 4H most common; 1H for active intraday.

CR-045 · %B Cross 0.5

Bollinger Band Crossovers
Stage 2 - Normalized position

1 · MARKETS

All liquid markets with reliable price history.

2 · DIAGRAM

```
Upper Band  ■■■■■■■■■■
Mid (SMA)   ■■■■■■■■■■
Lower Band  ■■■■■■■■■■
Price oscillates between bands; crosses signal regime
```

3 · FORMULA

```
%B = (Close - Lower) / (Upper - Lower); Cross: %B(t) > 0.5 AND %B(t-1) <= 0.5
```

4 · FORMULA NOTE

%B normalises position within the Bollinger envelope. Crossing 0.5 marks regime change. Bollinger Bands (John Bollinger, 1980s) measure 2 standard deviations from a 20-period SMA. The bands self-adjust to volatility, making them universal across instruments.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	10-50	Lookback
Source	Close	Close/HL2	Price source
Confirmation	1 bar	1-3 bars	Persistence
Min separation	0.5 ATR	0.25-1 ATR	Minimum cross gap

6 · INTERPRETATION

- Bands self-scale to recent volatility.
- %B normalises Bollinger reading to 0-1 range.
- Pair with regime filter to avoid chop-region whipsaws.
- First touch of an outer band after extended absence is the highest-quality.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume on the cross bar above 20-day average.
- Higher-timeframe regime aligned (or explicitly counter-trend mean-reversion thesis).
- Stop: structural swing point; target: prior level or 1.5R+.

8 · EXAMPLE

Hypothetical large-cap equity in confirmed uptrend; %B Cross 0.5 fired on a pullback retest of the mid-band 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 4H most common; 1H for active intraday.

CR-046 · %B Cross 1.0 (above upper band)

Bollinger Band Crossovers
Stage 2 - Trend strength

1 · MARKETS

All liquid markets with reliable price history.

2 · DIAGRAM

```
Upper Band  ■■■■■■■■■■
Mid (SMA)   ■■■■■■■■■■
Lower Band  ■■■■■■■■■■
Price oscillates between bands; crosses signal regime
```

3 · FORMULA

```
Cross: %B(t) > 1.0 AND %B(t-1) <= 1.0
```

4 · FORMULA NOTE

%B above 1.0 means price has cleared the upper band — trend strength indicator in confirmed regimes. Bollinger Bands (John Bollinger, 1980s) measure 2 standard deviations from a 20-period SMA. The bands self-adjust to volatility, making them universal across instruments.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	10-50	Lookback
Source	Close	Close/HL2	Price source
Confirmation	1 bar	1-3 bars	Persistence
Min separation	0.5 ATR	0.25-1 ATR	Minimum cross gap

6 · INTERPRETATION

- Bands self-scale to recent volatility.
- %B normalises Bollinger reading to 0-1 range.
- Pair with regime filter to avoid chop-region whipsaws.
- First touch of an outer band after extended absence is the highest-quality.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume on the cross bar above 20-day average.
- Higher-timeframe regime aligned (or explicitly counter-trend mean-reversion thesis).
- Stop: structural swing point; target: prior level or 1.5R+.

8 · EXAMPLE

Hypothetical large-cap equity in confirmed uptrend; %B Cross 1.0 (above upper band) fired on a pullback retest of the mid-band 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 4H most common; 1H for active intraday.

CR-047 · Bandwidth Expansion Cross

Bollinger Band Crossovers
Stage 2 - Regime detector

1 · MARKETS

All liquid markets with reliable price history.

2 · DIAGRAM

```
Upper Band  ■■■■■■■■■■
Mid (SMA)   ■■■■■■■■■■
Lower Band  ■■■■■■■■■■
Price oscillates between bands; crosses signal regime
```

3 · FORMULA

```
Bandwidth = (Upper - Lower) / Mid; Cross: BW(t) > SMA(BW, 50)(t) AND BW(t-1) <= SMA(BW, 50)(t-1)
```

4 · FORMULA NOTE

Bandwidth crossing above its long-period MA signals shift from quiet to expansive regime. Bollinger Bands (John Bollinger, 1980s) measure 2 standard deviations from a 20-period SMA. The bands self-adjust to volatility, making them universal across instruments.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	10-50	Lookback
Source	Close	Close/HL2	Price source
Confirmation	1 bar	1-3 bars	Persistence
Min separation	0.5 ATR	0.25-1 ATR	Minimum cross gap

6 · INTERPRETATION

- Bands self-scale to recent volatility.
- %B normalises Bollinger reading to 0-1 range.
- Pair with regime filter to avoid chop-region whipsaws.
- First touch of an outer band after extended absence is the highest-quality.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume on the cross bar above 20-day average.
- Higher-timeframe regime aligned (or explicitly counter-trend mean-reversion thesis).
- Stop: structural swing point; target: prior level or 1.5R+.

8 · EXAMPLE

Hypothetical large-cap equity in confirmed uptrend; Bandwidth Expansion Cross fired on a pullback retest of the mid-band 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 4H most common; 1H for active intraday.

CR-048 · Double Bollinger Band Cross

Bollinger Band Crossovers
Stage 2 - Layered volatility

1 · MARKETS

All liquid markets with reliable price history.

2 · DIAGRAM

```
Upper Band  ■■■■■■■■■■
Mid (SMA)   ■■■■■■■■■■
Lower Band  ■■■■■■■■■■
Price oscillates between bands; crosses signal regime
```

3 · FORMULA

```
BB1 = SMA20 +/- 1*Std; BB2 = SMA20 +/- 2*Std; Cross: Close > Upper1 AND Close <= Upper1 prior
```

4 · FORMULA NOTE

Two Bollinger Bands (1-sigma and 2-sigma). The cross out of the inner band into the outer signals expansion. Bollinger Bands (John Bollinger, 1980s) measure 2 standard deviations from a 20-period SMA. The bands self-adjust to volatility, making them universal across instruments.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	10-50	Lookback
Source	Close	Close/HL2	Price source
Confirmation	1 bar	1-3 bars	Persistence
Min separation	0.5 ATR	0.25-1 ATR	Minimum cross gap

6 · INTERPRETATION

- Bands self-scale to recent volatility.
- %B normalises Bollinger reading to 0-1 range.
- Pair with regime filter to avoid chop-region whipsaws.
- First touch of an outer band after extended absence is the highest-quality.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume on the cross bar above 20-day average.
- Higher-timeframe regime aligned (or explicitly counter-trend mean-reversion thesis).
- Stop: structural swing point; target: prior level or 1.5R+.

8 · EXAMPLE

Hypothetical large-cap equity in confirmed uptrend; Double Bollinger Band Cross fired on a pullback retest of the mid-band 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 4H most common; 1H for active intraday.

CR-049 · Bollinger / Keltner Squeeze Cross

Bollinger Band Crossovers
Stage 3 - TTM Squeeze

1 · MARKETS

All liquid markets with reliable price history.

2 · DIAGRAM

3 · FORMULA

```
Squeeze: BB Upper < Keltner Upper AND BB Lower > Keltner Lower; Release: condition flips
```

4 · FORMULA NOTE

Inspired by John Carter's TTM Squeeze: Bollinger Bands inside Keltner Channels signals consolidation; release fires the cross. Bollinger Bands (John Bollinger, 1980s) measure 2 standard deviations from a 20-period SMA. The bands self-adjust to volatility, making them universal across instruments.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	10-50	Lookback
Source	Close	Close/HL2	Price source
Confirmation	1 bar	1-3 bars	Persistence
Min separation	0.5 ATR	0.25-1 ATR	Minimum cross gap

6 · INTERPRETATION

- Bands self-scale to recent volatility.
- %B normalises Bollinger reading to 0-1 range.
- Pair with regime filter to avoid chop-region whipsaws.
- First touch of an outer band after extended absence is the highest-quality.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume on the cross bar above 20-day average.
- Higher-timeframe regime aligned (or explicitly counter-trend mean-reversion thesis).
- Stop: structural swing point; target: prior level or 1.5R+.

8 · EXAMPLE

Hypothetical large-cap equity in confirmed uptrend; Bollinger / Keltner Squeeze Cross fired on a pullback retest of the mid-band 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 4H most common; 1H for active intraday.

CR-050 · Bollinger Re-Entry After Walk

Bollinger Band Crossovers
Stage 3 - Mean reversion

1 · MARKETS

All liquid markets with reliable price history.

2 · DIAGRAM

```
Upper Band  ■■■■■■■■■■
Mid (SMA)   ■■■■■■■■■■
Lower Band  ■■■■■■■■■■
Price oscillates between bands; crosses signal regime
```

3 · FORMULA

```
Walk: Close > Upper for >=5 of last 7 bars; Re-entry: Close back below Upper
```

4 · FORMULA NOTE

After 'walking the band' (price riding the upper or lower band for many bars), re-entry inside the bands triggers a reversal candidate. Bollinger Bands (John Bollinger, 1980s) measure 2 standard deviations from a 20-period SMA. The bands self-adjust to volatility, making them universal across instruments.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	10-50	Lookback
Source	Close	Close/HL2	Price source
Confirmation	1 bar	1-3 bars	Persistence
Min separation	0.5 ATR	0.25-1 ATR	Minimum cross gap

6 · INTERPRETATION

- Bands self-scale to recent volatility.
- %B normalises Bollinger reading to 0-1 range.
- Pair with regime filter to avoid chop-region whipsaws.
- First touch of an outer band after extended absence is the highest-quality.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume on the cross bar above 20-day average.
- Higher-timeframe regime aligned (or explicitly counter-trend mean-reversion thesis).
- Stop: structural swing point; target: prior level or 1.5R+.

8 · EXAMPLE

Hypothetical large-cap equity in confirmed uptrend; Bollinger Re-Entry After Walk fired on a pullback retest of the mid-band 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 4H most common; 1H for active intraday.

CR-051 · Price / Keltner Upper Cross

Keltner Channel Crossovers
Foundation - Volatility breakout

1 · MARKETS

All liquid markets; especially commodities and FX where ATR scaling is most natural.

2 · DIAGRAM

```
Keltner Upper  ■■■■■■  (EMA + 2*ATR)
Keltner Mid    ■■■■■■  (EMA)
Keltner Lower  ■■■■■■  (EMA - 2*ATR)
Channels self-scale to ATR
```

3 · FORMULA

```
Upper = EMA20 + 2 * ATR20; Cross: Close > Upper
```

4 · FORMULA NOTE

Keltner channels (Chester Keltner, 1960; updated Linda Bradford Raschke) are ATR-based - more robust to outliers than std-dev bands.

5 · PARAMETERS

Parameter	Default	Range	Notes
EMA period	20	10-50	Mid-line period
ATR period	20	10-50	ATR lookback
ATR multiplier	2.0	1.5-3.0	Outer band scaling
Source	Close	Close/HL2	Price source

6 · INTERPRETATION

- ATR-based channels handle outliers more gracefully than std-dev bands.
- Mid-line slope is the cleanest single trend filter.
- Outer-band tags are extension events, not predictions.
- Combine with volume for confirmation.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Trend filter (200-EMA or higher-timeframe) aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical commodity ETF; Price / Keltner Upper 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 primary; weekly for longer-horizon trend reads.

CR-052 · Price / Keltner Lower Cross

Keltner Channel Crossovers
Foundation - Volatility breakdown

1 · MARKETS

All liquid markets; especially commodities and FX where ATR scaling is most natural.

2 · DIAGRAM

```
Keltner Upper  ■■■■■■  (EMA + 2*ATR)
Keltner Mid    ■■■■■■  (EMA)
Keltner Lower  ■■■■■■  (EMA - 2*ATR)
Channels self-scale to ATR
```

3 · FORMULA

```
Lower = EMA20 - 2 * ATR20; Cross: Close < Lower
```

4 · FORMULA NOTE

ATR-scaled lower channel break is a momentum extension signal.

5 · PARAMETERS

Parameter	Default	Range	Notes
EMA period	20	10-50	Mid-line period
ATR period	20	10-50	ATR lookback
ATR multiplier	2.0	1.5-3.0	Outer band scaling
Source	Close	Close/HL2	Price source

6 · INTERPRETATION

- ATR-based channels handle outliers more gracefully than std-dev bands.
- Mid-line slope is the cleanest single trend filter.
- Outer-band tags are extension events, not predictions.
- Combine with volume for confirmation.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Trend filter (200-EMA or higher-timeframe) aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical commodity ETF; Price / Keltner Lower 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 primary; weekly for longer-horizon trend reads.

CR-053 · Price / Keltner Mid (EMA) Cross

Keltner Channel Crossovers
Foundation - Trend bias

1 · MARKETS

All liquid markets; especially commodities and FX where ATR scaling is most natural.

2 · DIAGRAM

```
Keltner Upper  ■■■■■■  (EMA + 2*ATR)
Keltner Mid    ■■■■■■  (EMA)
Keltner Lower  ■■■■■■  (EMA - 2*ATR)
Channels self-scale to ATR
```

3 · FORMULA

```
Mid = EMA20; Cross: Close > Mid from below
```

4 · FORMULA NOTE

EMA-based trend bias filter inside the Keltner envelope.

5 · PARAMETERS

Parameter	Default	Range	Notes
EMA period	20	10-50	Mid-line period
ATR period	20	10-50	ATR lookback
ATR multiplier	2.0	1.5-3.0	Outer band scaling
Source	Close	Close/HL2	Price source

6 · INTERPRETATION

- ATR-based channels handle outliers more gracefully than std-dev bands.
- Mid-line slope is the cleanest single trend filter.
- Outer-band tags are extension events, not predictions.
- Combine with volume for confirmation.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Trend filter (200-EMA or higher-timeframe) aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical commodity ETF; Price / Keltner Mid (EMA) 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 primary; weekly for longer-horizon trend reads.

CR-054 · Keltner / Bollinger Convergence Cross

Keltner Channel Crossovers
Stage 2 - Volatility normalisation

1 · MARKETS

All liquid markets; especially commodities and FX where ATR scaling is most natural.

2 · DIAGRAM

```
Keltner Upper  ▇▇▇▇▇▇  (EMA + 2*ATR)
Keltner Mid    ▇▇▇▇▇▇  (EMA)
Keltner Lower  ▇▇▇▇▇▇  (EMA - 2*ATR)
Channels self-scale to ATR
```

3 · FORMULA

```
Convergence: |Keltner BW - Bollinger BW| < threshold
```

4 · FORMULA NOTE

When both volatility measures converge, regime is stable enough for setup activation.

5 · PARAMETERS

Parameter	Default	Range	Notes
EMA period	20	10-50	Mid-line period
ATR period	20	10-50	ATR lookback
ATR multiplier	2.0	1.5-3.0	Outer band scaling
Source	Close	Close/HL2	Price source

6 · INTERPRETATION

- ATR-based channels handle outliers more gracefully than std-dev bands.
- Mid-line slope is the cleanest single trend filter.
- Outer-band tags are extension events, not predictions.
- Combine with volume for confirmation.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Trend filter (200-EMA or higher-timeframe) aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical commodity ETF; Keltner / Bollinger Convergence 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 primary; weekly for longer-horizon trend reads.

CR-055 · Keltner Width Cross

Keltner Channel Crossovers
Stage 2 - Volatility regime

1 · MARKETS

All liquid markets; especially commodities and FX where ATR scaling is most natural.

2 · DIAGRAM

```
Keltner Upper  ■■■■■■  (EMA + 2*ATR)
Keltner Mid    ■■■■■■  (EMA)
Keltner Lower  ■■■■■■  (EMA - 2*ATR)
Channels self-scale to ATR
```

3 · FORMULA

```
Cross: KW(t) > SMA(KW, 50) AND KW(t-1) <= SMA(KW, 50)
```

4 · FORMULA NOTE

Channel-width expansion crossing its long average flags regime shift.

5 · PARAMETERS

Parameter	Default	Range	Notes
EMA period	20	10-50	Mid-line period
ATR period	20	10-50	ATR lookback
ATR multiplier	2.0	1.5-3.0	Outer band scaling
Source	Close	Close/HL2	Price source

6 · INTERPRETATION

- ATR-based channels handle outliers more gracefully than std-dev bands.
- Mid-line slope is the cleanest single trend filter.
- Outer-band tags are extension events, not predictions.
- Combine with volume for confirmation.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Trend filter (200-EMA or higher-timeframe) aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical commodity ETF; Keltner Width 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 primary; weekly for longer-horizon trend reads.

CR-056 · Keltner Mid Slope Cross Zero

Keltner Channel Crossovers
Stage 2 - Trend pivot

1 · MARKETS

All liquid markets; especially commodities and FX where ATR scaling is most natural.

2 · DIAGRAM

```
Keltner Upper  ■■■■■■  (EMA + 2*ATR)
Keltner Mid    ■■■■■■  (EMA)
Keltner Lower  ■■■■■■  (EMA - 2*ATR)
Channels self-scale to ATR
```

3 · FORMULA

```
Cross: Slope(EMA20)(t) > 0 AND Slope(EMA20)(t-1) <= 0
```

4 · FORMULA NOTE

Mid-line slope flipping positive marks the cleanest trend-pivot signal in the Keltner family.

5 · PARAMETERS

Parameter	Default	Range	Notes
EMA period	20	10-50	Mid-line period
ATR period	20	10-50	ATR lookback
ATR multiplier	2.0	1.5-3.0	Outer band scaling
Source	Close	Close/HL2	Price source

6 · INTERPRETATION

- ATR-based channels handle outliers more gracefully than std-dev bands.
- Mid-line slope is the cleanest single trend filter.
- Outer-band tags are extension events, not predictions.
- Combine with volume for confirmation.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Trend filter (200-EMA or higher-timeframe) aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical commodity ETF; Keltner Mid Slope Cross Zero 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 primary; weekly for longer-horizon trend reads.

CR-057 · Keltner Outer-band Tag Sequence

Keltner Channel Crossovers
Stage 3 - Sequence detection

1 · MARKETS

All liquid markets; especially commodities and FX where ATR scaling is most natural.

2 · DIAGRAM

```
Keltner Upper  ■■■■■■  (EMA + 2*ATR)
Keltner Mid    ■■■■■■  (EMA)
Keltner Lower  ■■■■■■  (EMA - 2*ATR)
Channels self-scale to ATR
```

3 · FORMULA

```
Three consecutive bars closing in the outer Keltner zone
```

4 · FORMULA NOTE

Sequence-based trend confirmation; rare and high-conviction when it appears.

5 · PARAMETERS

Parameter	Default	Range	Notes
EMA period	20	10-50	Mid-line period
ATR period	20	10-50	ATR lookback
ATR multiplier	2.0	1.5-3.0	Outer band scaling
Source	Close	Close/HL2	Price source

6 · INTERPRETATION

- ATR-based channels handle outliers more gracefully than std-dev bands.
- Mid-line slope is the cleanest single trend filter.
- Outer-band tags are extension events, not predictions.
- Combine with volume for confirmation.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Trend filter (200-EMA or higher-timeframe) aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical commodity ETF; Keltner Outer-band Tag Sequence 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 primary; weekly for longer-horizon trend reads.

CR-058 · Keltner / 200-EMA Cross

Keltner Channel Crossovers
Stage 2 - Regime filter

1 · MARKETS

All liquid markets; especially commodities and FX where ATR scaling is most natural.

2 · DIAGRAM

```
Keltner Upper  ■■■■■■  (EMA + 2*ATR)
Keltner Mid    ■■■■■■  (EMA)
Keltner Lower  ■■■■■■  (EMA - 2*ATR)
Channels self-scale to ATR
```

3 · FORMULA

```
Composite: Close > Keltner Upper AND Close > EMA200
```

4 · FORMULA NOTE

Combined Keltner extension with long-term regime filter.

5 · PARAMETERS

Parameter	Default	Range	Notes
EMA period	20	10-50	Mid-line period
ATR period	20	10-50	ATR lookback
ATR multiplier	2.0	1.5-3.0	Outer band scaling
Source	Close	Close/HL2	Price source

6 · INTERPRETATION

- ATR-based channels handle outliers more gracefully than std-dev bands.
- Mid-line slope is the cleanest single trend filter.
- Outer-band tags are extension events, not predictions.
- Combine with volume for confirmation.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Trend filter (200-EMA or higher-timeframe) aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical commodity ETF; Keltner / 200-EMA 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 primary; weekly for longer-horizon trend reads.

CR-059 · Keltner Inversion Cross

Keltner Channel Crossovers
Stage 3 - Reversal candidate

1 · MARKETS

All liquid markets; especially commodities and FX where ATR scaling is most natural.

2 · DIAGRAM

```
Keltner Upper  ■■■■■■  (EMA + 2*ATR)
Keltner Mid    ■■■■■■  (EMA)
Keltner Lower  ■■■■■■  (EMA - 2*ATR)
Channels self-scale to ATR
```

3 · FORMULA

```
Two consecutive opposite-extreme touches within 5 bars
```

4 · FORMULA NOTE

Inversion patterns at Keltner extremes often precede multi-bar reversals.

5 · PARAMETERS

Parameter	Default	Range	Notes
EMA period	20	10-50	Mid-line period
ATR period	20	10-50	ATR lookback
ATR multiplier	2.0	1.5-3.0	Outer band scaling
Source	Close	Close/HL2	Price source

6 · INTERPRETATION

- ATR-based channels handle outliers more gracefully than std-dev bands.
- Mid-line slope is the cleanest single trend filter.
- Outer-band tags are extension events, not predictions.
- Combine with volume for confirmation.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Trend filter (200-EMA or higher-timeframe) aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical commodity ETF; Keltner Inversion 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 primary; weekly for longer-horizon trend reads.

CR-060 · Keltner Stop Cross

Keltner Channel Crossovers
Stage 3 - Trailing exit

1 · MARKETS

All liquid markets; especially commodities and FX where ATR scaling is most natural.

2 · DIAGRAM

```
Keltner Upper  ■■■■■■  (EMA + 2*ATR)
Keltner Mid    ■■■■■■  (EMA)
Keltner Lower  ■■■■■■  (EMA - 2*ATR)
Channels self-scale to ATR
```

3 · FORMULA

```
Trailing: stop at Keltner Mid - 1*ATR; Cross: Close < Stop
```

4 · FORMULA NOTE

Used as systematic trailing-stop placement rule, not entry.

5 · PARAMETERS

Parameter	Default	Range	Notes
EMA period	20	10-50	Mid-line period
ATR period	20	10-50	ATR lookback
ATR multiplier	2.0	1.5-3.0	Outer band scaling
Source	Close	Close/HL2	Price source

6 · INTERPRETATION

- ATR-based channels handle outliers more gracefully than std-dev bands.
- Mid-line slope is the cleanest single trend filter.
- Outer-band tags are extension events, not predictions.
- Combine with volume for confirmation.

7 · SIGNAL CRITERIA & ENTRY RULES

- Cross with confirmation bar.
- Volume support on cross.
- Trend filter (200-EMA or higher-timeframe) aligned.
- Stop: structural; target: 1.5R+

8 · EXAMPLE

Hypothetical commodity ETF; Keltner 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 primary; weekly for longer-horizon trend reads.

CR-061 · Donchian 20-day Upper Break

Donchian Channel Crossovers
Foundation - Turtle entry

1 · MARKETS

All liquid markets; particularly commodities and trend-followers' indices.

2 · DIAGRAM

```
Donchian Upper  ■■■■■■  (highest high, N bars)
Donchian Mid    ■■■■■■  (midpoint)
Donchian Lower  ■■■■■■  (lowest low, N bars)
Pure-price channel; no smoothing
```

3 · FORMULA

```
Upper(t) = max(High over last 20 bars); Cross: Close > Upper(t-1)
```

4 · FORMULA NOTE

The Turtle Trading System's signature entry rule (Richard Dennis, William Eckhardt). Simple, robust, time-tested.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	10-100	Lookback bars
Source	HL	HL/Close	High/Low source
Confirmation	Close	Close/Wick	Cross definition
Slow period	55	40-100	Optional second period

6 · INTERPRETATION

- Pure-price; no smoothing artefacts.
- 20-day breakouts whipsaw more than 55-day breakouts.
- Combine with regime filter to suppress fade-back losses.
- Original Turtle System used both 20-day and 55-day in alternating fashion.

7 · SIGNAL CRITERIA & ENTRY RULES

- Donchian break with confirmation.
- Volume support on the breakout bar.
- Trend filter aligned (EMA50/200).
- Stop: opposite Donchian or structural swing.

8 · EXAMPLE

Hypothetical FX major; Donchian 20-day Upper Break fired during a multi-week trend 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; commodities benefit from monthly Donchian context.

CR-062 · Donchian 20-day Lower Break

Donchian Channel Crossovers
Foundation - Turtle short

1 · MARKETS

All liquid markets; particularly commodities and trend-followers' indices.

2 · DIAGRAM

```
Donchian Upper  ■■■■■■  (highest high, N bars)
Donchian Mid    ■■■■■■  (midpoint)
Donchian Lower  ■■■■■■  (lowest low, N bars)
Pure-price channel; no smoothing
```

3 · FORMULA

```
Lower(t) = min(Low over last 20 bars); Cross: Close < Lower(t-1)
```

4 · FORMULA NOTE

Mirror of the upper break; Turtle short entry.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	10-100	Lookback bars
Source	HL	HL/Close	High/Low source
Confirmation	Close	Close/Wick	Cross definition
Slow period	55	40-100	Optional second period

6 · INTERPRETATION

- Pure-price; no smoothing artefacts.
- 20-day breakouts whipsaw more than 55-day breakouts.
- Combine with regime filter to suppress fade-back losses.
- Original Turtle System used both 20-day and 55-day in alternating fashion.

7 · SIGNAL CRITERIA & ENTRY RULES

- Donchian break with confirmation.
- Volume support on the breakout bar.
- Trend filter aligned (EMA50/200).
- Stop: opposite Donchian or structural swing.

8 · EXAMPLE

Hypothetical FX major; Donchian 20-day Lower Break fired during a multi-week trend 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; commodities benefit from monthly Donchian context.

CR-063 · Donchian 55-day Upper Break

Donchian Channel Crossovers
Stage 2 - Slow Turtle

1 · MARKETS

All liquid markets; particularly commodities and trend-followers' indices.

2 · DIAGRAM

```
Donchian Upper  ■■■■■■  (highest high, N bars)
Donchian Mid    ■■■■■■  (midpoint)
Donchian Lower  ■■■■■■  (lowest low, N bars)
Pure-price channel; no smoothing
```

3 · FORMULA

```
Upper(t) = max(High over last 55 bars); Cross
```

4 · FORMULA NOTE

The Turtle System Two: slower, lower whipsaw, higher conviction.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	10-100	Lookback bars
Source	HL	HL/Close	High/Low source
Confirmation	Close	Close/Wick	Cross definition
Slow period	55	40-100	Optional second period

6 · INTERPRETATION

- Pure-price; no smoothing artefacts.
- 20-day breakouts whipsaw more than 55-day breakouts.
- Combine with regime filter to suppress fade-back losses.
- Original Turtle System used both 20-day and 55-day in alternating fashion.

7 · SIGNAL CRITERIA & ENTRY RULES

- Donchian break with confirmation.
- Volume support on the breakout bar.
- Trend filter aligned (EMA50/200).
- Stop: opposite Donchian or structural swing.

8 · EXAMPLE

Hypothetical FX major; Donchian 55-day Upper Break fired during a multi-week trend 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; commodities benefit from monthly Donchian context.

CR-064 · Donchian Mid-Line Cross

Donchian Channel Crossovers
Stage 2 - Channel bias

1 · MARKETS

All liquid markets; particularly commodities and trend-followers' indices.

2 · DIAGRAM

```
Donchian Upper  ■■■■■■  (highest high, N bars)
Donchian Mid    ■■■■■■  (midpoint)
Donchian Lower  ■■■■■■  (lowest low, N bars)
Pure-price channel; no smoothing
```

3 · FORMULA

```
Mid(t) = (Upper + Lower) / 2; Cross: Close > Mid
```

4 · FORMULA NOTE

Mid-line cross signals bias change inside the channel.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	10-100	Lookback bars
Source	HL	HL/Close	High/Low source
Confirmation	Close	Close/Wick	Cross definition
Slow period	55	40-100	Optional second period

6 · INTERPRETATION

- Pure-price; no smoothing artefacts.
- 20-day breakouts whipsaw more than 55-day breakouts.
- Combine with regime filter to suppress fade-back losses.
- Original Turtle System used both 20-day and 55-day in alternating fashion.

7 · SIGNAL CRITERIA & ENTRY RULES

- Donchian break with confirmation.
- Volume support on the breakout bar.
- Trend filter aligned (EMA50/200).
- Stop: opposite Donchian or structural swing.

8 · EXAMPLE

Hypothetical FX major; Donchian Mid-Line Cross fired during a multi-week trend 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; commodities benefit from monthly Donchian context.

CR-065 · Donchian / EMA Composite

Donchian Channel Crossovers
Stage 2 - Combined filter

1 · MARKETS

All liquid markets; particularly commodities and trend-followers' indices.

2 · DIAGRAM

```
Donchian Upper  ■■■■■■  (highest high, N bars)
Donchian Mid    ■■■■■■  (midpoint)
Donchian Lower  ■■■■■■  (lowest low, N bars)
Pure-price channel; no smoothing
```

3 · FORMULA

```
Composite: Donchian break AND EMA50 trending up
```

4 · FORMULA NOTE

Filtering Turtle entries by EMA regime improves edge in modern markets.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	10-100	Lookback bars
Source	HL	HL/Close	High/Low source
Confirmation	Close	Close/Wick	Cross definition
Slow period	55	40-100	Optional second period

6 · INTERPRETATION

- Pure-price; no smoothing artefacts.
- 20-day breakouts whipsaw more than 55-day breakouts.
- Combine with regime filter to suppress fade-back losses.
- Original Turtle System used both 20-day and 55-day in alternating fashion.

7 · SIGNAL CRITERIA & ENTRY RULES

- Donchian break with confirmation.
- Volume support on the breakout bar.
- Trend filter aligned (EMA50/200).
- Stop: opposite Donchian or structural swing.

8 · EXAMPLE

Hypothetical FX major; Donchian / EMA Composite fired during a multi-week trend 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; commodities benefit from monthly Donchian context.

CR-066 · Donchian Width Cross

Donchian Channel Crossovers
Stage 2 - Volatility expansion

1 · MARKETS

All liquid markets; particularly commodities and trend-followers' indices.

2 · DIAGRAM

```
Donchian Upper  ■■■■■■  (highest high, N bars)
Donchian Mid    ■■■■■■  (midpoint)
Donchian Lower  ■■■■■■  (lowest low, N bars)
Pure-price channel; no smoothing
```

3 · FORMULA

```
Width = Upper - Lower; Cross: Width > SMA(Width, 50)
```

4 · FORMULA NOTE

Channel-width expansion signals regime shift.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	10-100	Lookback bars
Source	HL	HL/Close	High/Low source
Confirmation	Close	Close/Wick	Cross definition
Slow period	55	40-100	Optional second period

6 · INTERPRETATION

- Pure-price; no smoothing artefacts.
- 20-day breakouts whipsaw more than 55-day breakouts.
- Combine with regime filter to suppress fade-back losses.
- Original Turtle System used both 20-day and 55-day in alternating fashion.

7 · SIGNAL CRITERIA & ENTRY RULES

- Donchian break with confirmation.
- Volume support on the breakout bar.
- Trend filter aligned (EMA50/200).
- Stop: opposite Donchian or structural swing.

8 · EXAMPLE

Hypothetical FX major; Donchian Width Cross fired during a multi-week trend 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; commodities benefit from monthly Donchian context.

CR-067 · Donchian Multi-Period Stack

Donchian Channel Crossovers
Stage 3 - Multi-timeframe

1 · MARKETS

All liquid markets; particularly commodities and trend-followers' indices.

2 · DIAGRAM

```
Donchian Upper  ■■■■■■  (highest high, N bars)
Donchian Mid    ■■■■■■  (midpoint)
Donchian Lower  ■■■■■■  (lowest low, N bars)
Pure-price channel; no smoothing
```

3 · FORMULA

```
Stack: Close > Donchian Upper(20) AND Close > Donchian Upper(55)
```

4 · FORMULA NOTE

Multi-period Donchian alignment is institutional trend-following.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	10-100	Lookback bars
Source	HL	HL/Close	High/Low source
Confirmation	Close	Close/Wick	Cross definition
Slow period	55	40-100	Optional second period

6 · INTERPRETATION

- Pure-price; no smoothing artefacts.
- 20-day breakouts whipsaw more than 55-day breakouts.
- Combine with regime filter to suppress fade-back losses.
- Original Turtle System used both 20-day and 55-day in alternating fashion.

7 · SIGNAL CRITERIA & ENTRY RULES

- Donchian break with confirmation.
- Volume support on the breakout bar.
- Trend filter aligned (EMA50/200).
- Stop: opposite Donchian or structural swing.

8 · EXAMPLE

Hypothetical FX major; Donchian Multi-Period Stack fired during a multi-week trend 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; commodities benefit from monthly Donchian context.

CR-068 · Donchian Compression Break

Donchian Channel Crossovers
Stage 3 - Pre-break setup

1 · MARKETS

All liquid markets; particularly commodities and trend-followers' indices.

2 · DIAGRAM

```
Donchian Upper  ■■■■■■  (highest high, N bars)
Donchian Mid    ■■■■■■  (midpoint)
Donchian Lower  ■■■■■■  (lowest low, N bars)
Pure-price channel; no smoothing
```

3 · FORMULA

```
Compression: Width < quantile(Width, 0.15, 100); Break: Close > Upper
```

4 · FORMULA NOTE

Compression-then-break is the highest-conviction Donchian setup.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	10-100	Lookback bars
Source	HL	HL/Close	High/Low source
Confirmation	Close	Close/Wick	Cross definition
Slow period	55	40-100	Optional second period

6 · INTERPRETATION

- Pure-price; no smoothing artefacts.
- 20-day breakouts whipsaw more than 55-day breakouts.
- Combine with regime filter to suppress fade-back losses.
- Original Turtle System used both 20-day and 55-day in alternating fashion.

7 · SIGNAL CRITERIA & ENTRY RULES

- Donchian break with confirmation.
- Volume support on the breakout bar.
- Trend filter aligned (EMA50/200).
- Stop: opposite Donchian or structural swing.

8 · EXAMPLE

Hypothetical FX major; Donchian Compression Break fired during a multi-week trend 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; commodities benefit from monthly Donchian context.

CR-069 · Donchian Lower Re-Cross

Donchian Channel Crossovers
Stage 3 - Failed breakout reversal

1 · MARKETS

All liquid markets; particularly commodities and trend-followers' indices.

2 · DIAGRAM

```
Donchian Upper  ■■■■■■  (highest high, N bars)
Donchian Mid    ■■■■■■  (midpoint)
Donchian Lower  ■■■■■■  (lowest low, N bars)
Pure-price channel; no smoothing
```

3 · FORMULA

```
Lower break followed by re-cross above Lower within 3 bars
```

4 · FORMULA NOTE

Failed breakout reversals can trigger high-quality counter-trend entries.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	10-100	Lookback bars
Source	HL	HL/Close	High/Low source
Confirmation	Close	Close/Wick	Cross definition
Slow period	55	40-100	Optional second period

6 · INTERPRETATION

- Pure-price; no smoothing artefacts.
- 20-day breakouts whipsaw more than 55-day breakouts.
- Combine with regime filter to suppress fade-back losses.
- Original Turtle System used both 20-day and 55-day in alternating fashion.

7 · SIGNAL CRITERIA & ENTRY RULES

- Donchian break with confirmation.
- Volume support on the breakout bar.
- Trend filter aligned (EMA50/200).
- Stop: opposite Donchian or structural swing.

8 · EXAMPLE

Hypothetical FX major; Donchian Lower Re-Cross fired during a multi-week trend 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; commodities benefit from monthly Donchian context.

CR-070 · Donchian / ATR Stop Cross

Donchian Channel Crossovers
Stage 3 - Trailing exit

1 · MARKETS

All liquid markets; particularly commodities and trend-followers' indices.

2 · DIAGRAM

```
Donchian Upper  ■■■■■■  (highest high, N bars)
Donchian Mid    ■■■■■■  (midpoint)
Donchian Lower  ■■■■■■  (lowest low, N bars)
Pure-price channel; no smoothing
```

3 · FORMULA

```
Trail stop: Donchian Lower (for longs); Cross: Close < Lower
```

4 · FORMULA NOTE

Donchian-based trailing stop, the original Turtle exit rule.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	10-100	Lookback bars
Source	HL	HL/Close	High/Low source
Confirmation	Close	Close/Wick	Cross definition
Slow period	55	40-100	Optional second period

6 · INTERPRETATION

- Pure-price; no smoothing artefacts.
- 20-day breakouts whipsaw more than 55-day breakouts.
- Combine with regime filter to suppress fade-back losses.
- Original Turtle System used both 20-day and 55-day in alternating fashion.

7 · SIGNAL CRITERIA & ENTRY RULES

- Donchian break with confirmation.
- Volume support on the breakout bar.
- Trend filter aligned (EMA50/200).
- Stop: opposite Donchian or structural swing.

8 · EXAMPLE

Hypothetical FX major; Donchian / ATR Stop Cross fired during a multi-week trend 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; commodities benefit from monthly Donchian context.

CR-071 · Linear Regression Channel Cross

Channel & Composite Crossovers
Stage 2 - LRC reversion

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
Channel Upper  ■■■■■■
Channel Mid    ■■■■■■
Channel Lower  ■■■■■■
Composite cross over channel boundary
```

3 · FORMULA

```
LRC: linear regression line +/- N*sigma; Cross: Close > LRC Upper
```

4 · FORMULA NOTE

Linear regression channels capture trend direction and extension simultaneously.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	14-55	Lookback
Source	Close	Close/HL2	Price source
Confirmation	1 bar	1-3 bars	Persistence
Multiplier	2.0	1.5-3.0	Channel scaling

6 · INTERPRETATION

- Channel-based crosses are regime-aware by construction.
- Composite crosses (multiple channels agreeing) are higher-conviction.
- Pair with volume for confirmation.
- Use as filters as well as triggers depending on context.

7 · SIGNAL CRITERIA & ENTRY RULES

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

8 · EXAMPLE

Hypothetical liquid market; Linear Regression Channel Cross fired during a regime transition 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.

CR-072 · Pivot High/Low Cross

Channel & Composite Crossovers
Foundation - Pivot break

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
Channel Upper  ■■■■■■
Channel Mid    ■■■■■■
Channel Lower  ■■■■■■
Composite cross over channel boundary
```

3 · FORMULA

```
Cross: Close > most recent N-bar pivot high
```

4 · FORMULA NOTE

Floor traders' pivot-point methodology adapted to higher timeframes.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	14-55	Lookback
Source	Close	Close/HL2	Price source
Confirmation	1 bar	1-3 bars	Persistence
Multiplier	2.0	1.5-3.0	Channel scaling

6 · INTERPRETATION

- Channel-based crosses are regime-aware by construction.
- Composite crosses (multiple channels agreeing) are higher-conviction.
- Pair with volume for confirmation.
- Use as filters as well as triggers depending on context.

7 · SIGNAL CRITERIA & ENTRY RULES

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

8 · EXAMPLE

Hypothetical liquid market; Pivot High/Low Cross fired during a regime transition 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.

CR-073 · Anchored VWAP / Standard VWAP Cross

Channel & Composite Crossovers
Stage 3 - Dual-VWAP

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
Channel Upper  ■■■■■■
Channel Mid    ■■■■■■
Channel Lower  ■■■■■■
Composite cross over channel boundary
```

3 · FORMULA

```
Cross: Close > AVWAP from key swing low AND Close > session VWAP
```

4 · FORMULA NOTE

Composite VWAP cross combining session and anchored methods.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	14-55	Lookback
Source	Close	Close/HL2	Price source
Confirmation	1 bar	1-3 bars	Persistence
Multiplier	2.0	1.5-3.0	Channel scaling

6 · INTERPRETATION

- Channel-based crosses are regime-aware by construction.
- Composite crosses (multiple channels agreeing) are higher-conviction.
- Pair with volume for confirmation.
- Use as filters as well as triggers depending on context.

7 · SIGNAL CRITERIA & ENTRY RULES

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

8 · EXAMPLE

Hypothetical liquid market; Anchored VWAP / Standard VWAP Cross fired during a regime transition 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.

CR-074 · Hi-Low Channel Cross

Channel & Composite Crossovers
Foundation - Highest-Lowest

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
Channel Upper  ■■■■■■
Channel Mid    ■■■■■■
Channel Lower  ■■■■■■
Composite cross over channel boundary
```

3 · FORMULA

```
Channel: max(High, N) and min(Low, N); Cross
```

4 · FORMULA NOTE

Generic high-low channel; close cousin of Donchian.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	14-55	Lookback
Source	Close	Close/HL2	Price source
Confirmation	1 bar	1-3 bars	Persistence
Multiplier	2.0	1.5-3.0	Channel scaling

6 · INTERPRETATION

- Channel-based crosses are regime-aware by construction.
- Composite crosses (multiple channels agreeing) are higher-conviction.
- Pair with volume for confirmation.
- Use as filters as well as triggers depending on context.

7 · SIGNAL CRITERIA & ENTRY RULES

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

8 · EXAMPLE

Hypothetical liquid market; Hi-Low Channel Cross fired during a regime transition 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.

CR-075 · Price / Cloud Top Cross (Ichimoku Senkou A)

Channel & Composite Crossovers
Stage 2 - Cloud edge

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
Channel Upper  ■■■■■■
Channel Mid    ■■■■■■
Channel Lower  ■■■■■■
Composite cross over channel boundary
```

3 · FORMULA

```
Cross: Close > Senkou Span A AND Close <= Senkou Span A prior
```

4 · FORMULA NOTE

Ichimoku's leading span A as a regime filter; precedes full cloud cross.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	14-55	Lookback
Source	Close	Close/HL2	Price source
Confirmation	1 bar	1-3 bars	Persistence
Multiplier	2.0	1.5-3.0	Channel scaling

6 · INTERPRETATION

- Channel-based crosses are regime-aware by construction.
- Composite crosses (multiple channels agreeing) are higher-conviction.
- Pair with volume for confirmation.
- Use as filters as well as triggers depending on context.

7 · SIGNAL CRITERIA & ENTRY RULES

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

8 · EXAMPLE

Hypothetical liquid market; Price / Cloud Top Cross (Ichimoku Senkou A) fired during a regime transition 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.

CR-076 · ATR Trailing Stop Cross

Channel & Composite Crossovers
Stage 2 - Chandelier exit

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
Channel Upper  ■■■■■■
Channel Mid    ■■■■■■
Channel Lower  ■■■■■■
Composite cross over channel boundary
```

3 · FORMULA

```
Trail: highest_high - 3*ATR; Cross: Close < Trail
```

4 · FORMULA NOTE

Chandelier exit (Charles LeBeau, 1990s); ATR-based trailing stop.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	14-55	Lookback
Source	Close	Close/HL2	Price source
Confirmation	1 bar	1-3 bars	Persistence
Multiplier	2.0	1.5-3.0	Channel scaling

6 · INTERPRETATION

- Channel-based crosses are regime-aware by construction.
- Composite crosses (multiple channels agreeing) are higher-conviction.
- Pair with volume for confirmation.
- Use as filters as well as triggers depending on context.

7 · SIGNAL CRITERIA & ENTRY RULES

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

8 · EXAMPLE

Hypothetical liquid market; ATR Trailing Stop Cross fired during a regime transition 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.

CR-077 · Standard Error Channel Cross

Channel & Composite Crossovers
Stage 3 - Regression band

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
Channel Upper  ■■■■■■
Channel Mid    ■■■■■■
Channel Lower  ■■■■■■
Composite cross over channel boundary
```

3 · FORMULA

```
Channel: regression line +/- 2*standard_error; Cross
```

4 · FORMULA NOTE

Standard-error channels are statistical confidence intervals around regression trend.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	14-55	Lookback
Source	Close	Close/HL2	Price source
Confirmation	1 bar	1-3 bars	Persistence
Multiplier	2.0	1.5-3.0	Channel scaling

6 · INTERPRETATION

- Channel-based crosses are regime-aware by construction.
- Composite crosses (multiple channels agreeing) are higher-conviction.
- Pair with volume for confirmation.
- Use as filters as well as triggers depending on context.

7 · SIGNAL CRITERIA & ENTRY RULES

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

8 · EXAMPLE

Hypothetical liquid market; Standard Error Channel Cross fired during a regime transition 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.

CR-078 · Vortex Indicator (VI+ / VI-) Cross

Channel & Composite Crossovers
Stage 3 - Wilder's vortex

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
Channel Upper  ■■■■■■
Channel Mid    ■■■■■■
Channel Lower  ■■■■■■
Composite cross over channel boundary
```

3 · FORMULA

```
VI+ and VI- (Botes & Siepman, 2009); Cross: VI+ > VI-
```

4 · FORMULA NOTE

Vortex Indicator cross signals directional regime.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	14-55	Lookback
Source	Close	Close/HL2	Price source
Confirmation	1 bar	1-3 bars	Persistence
Multiplier	2.0	1.5-3.0	Channel scaling

6 · INTERPRETATION

- Channel-based crosses are regime-aware by construction.
- Composite crosses (multiple channels agreeing) are higher-conviction.
- Pair with volume for confirmation.
- Use as filters as well as triggers depending on context.

7 · SIGNAL CRITERIA & ENTRY RULES

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

8 · EXAMPLE

Hypothetical liquid market; Vortex Indicator (VI+ / VI-) Cross fired during a regime transition 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.

CR-079 · Volatility Stop Cross

Channel & Composite Crossovers
Stage 3 - Welles Wilder

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
Channel Upper  ■■■■■■
Channel Mid    ■■■■■■
Channel Lower  ■■■■■■
Composite cross over channel boundary
```

3 · FORMULA

```
Stop: previous high - SAR-style volatility step; Cross: Close < Stop
```

4 · FORMULA NOTE

Volatility stop is one of Welles Wilder's exit-rule contributions.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	14-55	Lookback
Source	Close	Close/HL2	Price source
Confirmation	1 bar	1-3 bars	Persistence
Multiplier	2.0	1.5-3.0	Channel scaling

6 · INTERPRETATION

- Channel-based crosses are regime-aware by construction.
- Composite crosses (multiple channels agreeing) are higher-conviction.
- Pair with volume for confirmation.
- Use as filters as well as triggers depending on context.

7 · SIGNAL CRITERIA & ENTRY RULES

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

8 · EXAMPLE

Hypothetical liquid market; Volatility Stop Cross fired during a regime transition 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.

CR-080 · Median Price / Mid-Channel Cross

Channel & Composite Crossovers
Stage 2 - Composite mid

1 · MARKETS

All liquid markets.

2 · DIAGRAM

```
Channel Upper  ■■■■■■
Channel Mid    ■■■■■■
Channel Lower  ■■■■■■
Composite cross over channel boundary
```

3 · FORMULA

```
Median = (H+L)/2; Mid-channel = (Donchian Mid + Bollinger Mid + Keltner Mid) / 3; Cross
```

4 · FORMULA NOTE

Composite mid captures consensus across three channel methodologies.

5 · PARAMETERS

Parameter	Default	Range	Notes
Period	20	14-55	Lookback
Source	Close	Close/HL2	Price source
Confirmation	1 bar	1-3 bars	Persistence
Multiplier	2.0	1.5-3.0	Channel scaling

6 · INTERPRETATION

- Channel-based crosses are regime-aware by construction.
- Composite crosses (multiple channels agreeing) are higher-conviction.
- Pair with volume for confirmation.
- Use as filters as well as triggers depending on context.

7 · SIGNAL CRITERIA & ENTRY RULES

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

8 · EXAMPLE

Hypothetical liquid market; Median Price / Mid-Channel Cross fired during a regime transition 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.