

Elliott Wave — Diagonal Waves

The second type of motive wave. Unlike impulses, diagonals allow wave 4 to overlap wave 1 — the one exception to the golden rule. They form wedge-shaped patterns and always appear at the BEGINNING or END of a move, never the middle.

What Are Diagonals?

Diagonals are wedge-shaped five-wave patterns that belong to the motive phase (they move in the direction of the primary trend), but they are NOT impulse waves. The key distinction: **wave 4 is allowed to overlap wave 1** in a diagonal. This is the only time that overlap rule is broken.

If you're counting and see a five-wave structure with overlap between waves 1 and 4, don't panic — it's probably a diagonal, not an invalid impulse count.

Where Can Diagonals Appear?

Diagonals either **begin** something or **end** something. They cannot appear in the middle of a move.

Type	Position	What It Signals
Leading Diagonal	Wave 1 of an impulse, or Wave A of a zigzag	Beginning of a new trend
Ending Diagonal	Wave 5 of an impulse, or Wave C of a correction	End of a trend / exhaustion

You can also get a diagonal on the wave 5 WITHIN a larger wave (e.g. wave 5 of wave 3), but the principle holds — it's ending that sub-wave.

Two Shapes: Contracting vs Expanding

Contracting diagonal: Widest at the start, narrowest at the end — looks like a **falling/rising wedge**. Wave 1 is the longest, wave 5 is the shortest. The more common type.

Expanding diagonal: Narrowest at the start, widest at the end — looks like a **crocodile mouth** or megaphone. Wave 1 is the shortest, wave 5 is the longest. Less common but powerful.

Internal Structure

Each wave within a diagonal can subdivide as either:

- **3-3-3-3-3** (each wave is a three-wave ABC structure) — more common
- **5-3-5-3-5** (actionary waves are five-wave impulses, corrective waves are three-wave) — less common

Both are valid. The 3-3-3-3-3 pattern means every sub-wave within the diagonal is corrective in nature (ABC, ABC, ABC, ABC, ABC), which is why diagonals look choppier and less impulsive than standard impulse waves.

Contracting Diagonal Rules

Leading (Wave 1 or Wave A)

Rule	Description
Wave 1 is the longest	Sets the size — everything after is smaller
Wave 3 can't be the shortest	Same as standard impulse rule
Wave 5 must be the shortest	Because wave 1 is longest and wave 3 can't be shortest → wave 5 is shortest
Wave 2 can't go past wave 1's start	Standard rule
Wave 3 breaks past wave 1's end	This is the overlap — wave 3 enters wave 1 territory (allowed in diagonals)

Rule	Description
Wave 4 usually breaks past wave 1's end	More overlap — normal for diagonals
Wave 5 can truncate	Wave 5 may fail to surpass wave 3
Wave 2 can't be a triangle	Internal structure rule

After a leading diagonal completes: Expect a correction (wave 2 or wave B), then a powerful wave 3 or wave C in the same direction. Leading diagonals are the beginning of something — often something big.

Ending (Wave 5 or Wave C)

Same structural rules as the leading version, but it appears at the END of a move. After an ending contracting diagonal completes, expect a **sharp reversal** in the opposite direction — the entire trend is exhausted.

Expanding Diagonal Rules

Leading (Wave 1 or Wave A)

Rule	Description
Wave 1 is the shortest	Opposite of contracting — starts small
Wave 3 can't be the shortest	Standard rule — and wave 3 is longer than wave 1 but shorter than wave 5
Wave 5 is the longest	The final wave is the biggest push
Wave 2 can't go past wave 1's start	Standard rule
Wave 4 can't go past wave 2's end	Keeps the expanding structure valid
Wave 4 is longer than wave 2	Corrections get bigger as the pattern expands
Wave 5 always ends beyond wave 3	No truncation allowed — wave 5 must be the longest
Wave 5 can overshoot or undershoot the trendline	These are called throw overs

Expanding leading diagonals are considered riskier than contracting ones, but when they work, they signal the start of a major move.

Ending (Wave 5 or Wave C)

Same expanding structure but at the END of a move. After completion, expect a sharp reversal of the entire preceding trend.

Jesse Livermore's Accumulation Cylinder

The expanding leading diagonal is the same pattern Jesse Livermore called the **accumulation cylinder** — one of the earliest technical analysis concepts. Livermore identified this expanding wedge shape at the beginning of major trends: wave 1 (small), wave 3 (bigger), wave 5 (biggest) → then the breakout into wave 3 of the larger degree.

Apple on the monthly chart is one of the most famous examples — an expanding leading diagonal formed wave 1 before the stock went on its massive multi-year run. The S&P 500's historical yearly chart shows the same pattern at the start of the secular bull market.

If you ever see that crocodile mouth pattern at the start of a move, it could be the beginning of something very powerful.

Throw Overs

A throw over occurs when wave 5 of a diagonal **briefly pushes beyond the trendline** connecting waves 1 and 3 (in a contracting diagonal) or waves 2 and 4, before reversing dramatically.

Three outcomes for wave 5 at the trendline:

1. **Falls short** (truncation) — doesn't reach the trendline
2. **Touches** the trendline — standard completion
3. **Goes beyond** the trendline — throw over

Throw Over Characteristics

- After a throw over, price **reverses dramatically** back in the opposite direction and reverts quickly to where the diagonal began
- The reversal can take **one-third to one-half the time** it took for the diagonal to form — so if the diagonal took 6 months, the reversal can happen in 2-3 months
- In a **leading diagonal** throw over: the reversal is simply wave 2 (or wave B), followed by a powerful wave 3 continuing in the original direction

- In an **ending diagonal** throw over: the reversal is a major ABC correction of the entire preceding impulse — this is the big one

Bear market example: A falling wedge (contracting ending diagonal) with a throw under — price breaks below the wedge, triggers stop losses on everyone buying the falling wedge, then reverses sharply back up through the entire pattern. Classic stop-loss hunt before the real reversal.

Real Chart Examples

Bitcoin COVID bottom: Leading contracting diagonal formed the base → wave 1, 2, 3, 4, 5 with overlap → ABC correction → then wave 3 took off massively

Bitcoin top (2021): Ending diagonal at the top of the entire move → wave 1, 2, 3, 4, 5 with overlap in a rising wedge → followed by the bear market correction

Bitcoin also had an ending diagonal in the C wave of the correction — same pattern but within the corrective phase, ending the C wave before the next impulse up

South32: Expanding leading diagonal → wave 1 smallest, wave 5 longest → crocodile mouth → then correction and takeoff

Apple monthly: Expanding leading diagonal formed wave 1 of the entire secular trend → one of the most famous examples in markets

S&P 500 yearly (log): Expanding leading diagonal at the very beginning of the long-term bull market → deep wave 2 retracement (786) → then the massive wave 3 followed

Quick Reference

Feature	Contracting	Expanding
Shape	Wedge narrowing to apex	Crocodile mouth widening
Wave 1	Longest	Shortest
Wave 5	Shortest	Longest
Truncation	Possible on wave 5	Not possible (wave 5 must be longest)
Throw overs	Can happen	Can happen
More common?	Yes	No (but more powerful when it appears)

Feature	Contracting	Expanding
Where found	Leading (wave 1/A) or Ending (wave 5/C)	Leading (wave 1/A) or Ending (wave 5/C)

Revision #1
Created 10 May 2026 10:44:22 by Conor
Updated 10 May 2026 10:44:33 by Conor