

KNOX Spectrum Vaults

Structured DeFi yield, sliced into risk / reward tranches

Choose the position that matches your appetite for safety, income, or upside.

1. WHAT IT IS

- Each pool takes one yield source — such as Morpho, Aave, Pendle, or another ERC-4626 vault.
- That yield is split into independent positions with different risk / reward profiles.
- Every pool is standalone: its own parameters, lifecycle, and waterfall.



MORE SAFETY & PREDICTABILITY

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MORE RISK & UPSIDE

Senior — Fixed Rate
 Pre-agreed fixed return
 Paid first. Most protected.

Spectrum Tranches — Capped APY positions
 User-selectable caps on a rate grid. Paid in order.

Junior — Uncapped Residual
 First-loss / last-paid position.
 Uncapped upside.

2. PICK YOUR TRANCHE

SENIOR

- Pre-agreed fixed APY
- Paid first in settlement
- Best protected — lower tranches absorb losses first
- Capacity-limited by subordinate collateral
- Optional senior early exit in configured pools

SPECTRUM

- User-selectable APY cap on a rate grid
- Lower caps = safer, higher caps = more upside
- Paid after senior, from lowest cap to highest
- Created on demand when a new grid point is first used
- Can share in surplus based on risk

JUNIOR

- First-loss / last-paid position
- Gets residual yield after senior and spectrum caps
- Uncapped upside when markets outperform
- Acts as the main insurance buffer for safer tranches

3. POOL LIFECYCLE

1. Active — deposits open

2. Capital deployed into one underlying market

3. Maturity / redeem from market

4. Settlement — tranche vaults receive final balances

- Shares are ERC-20 tranche tokens and can be transferred or traded before maturity.
- General withdrawals are locked until settlement.
- Some pools may allow senior early exit.

Operator powers and senior early exit are risk-management options, not the default behavior of every pool.

4. SETTLEMENT WATERFALL

- If yield is positive, protocol / curator fees are taken from total yield.
- Protected floors are reserved for each tranche.
- Senior is filled up to its contracted fixed return.
- Spectrum tranches are filled from lowest APY cap to highest.
- Any remaining surplus goes to junior first up to its hurdle, then can be shared across spectrum + junior based on risk-weighted participation.
- If the market underperforms, losses hit junior first, then higher-risk spectrum, then safer spectrum, with senior last.

5. RISK ENGINE

- Safer tranches are backed by the collateral of riskier tranches.
- Lower-cap spectrum tranches have more protection than higher-cap spectrum tranches.
- Senior and spectrum capacity shrink over time, limiting late deposits.
- The more subordinate capital exists, the more safer tranches the pool can support.

6. WHY IT'S FLEXIBLE

- Any grid point between senior and the max spectrum rate can become a tranche.
- Works with both synchronous and asynchronous yield markets.
- Reward tokens and surplus can flow mainly to spectrum / junior, not senior.

OPTIONAL SAFEGUARDS

- Vault operator (optional): a designated address may have emergency powers if enabled at pool deployment.
- Pause:** temporarily blocks deposits, withdrawals, and settlement for incident response.
- Early redemption:** can trigger redeem / settle before maturity if the underlying market becomes impaired.
- These powers are opt-in. If no operator is set, neither capability exists.

TYPICAL UNDERLYINGS

Morpho
 Aave
 Pendle
 ERC-4626 Vaults
 ...and more

One source of yield. Many ways to participate.

KNOX Spectrum Vaults align risk, capital, and opportunity through transparent structure and on-chain enforcement.

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