

Harmonic Oscillator Settings Guide

Complete Configuration Reference for Signal Pilot's Momentum Voting System

What Is the Harmonic Oscillator?

The Harmonic Oscillator is Signal Pilot's advanced momentum indicator that combines multiple oscillator inputs into a single "voting" system. Instead of watching 5 different indicators, you get one unified momentum read.

Core Components

| Component | What It Measures | Weight |
|-------------|---|--------------|
| RSI | Relative strength (overbought/oversold) | Configurable |
| Stochastic | Price position within range | Configurable |
| CCI | Price deviation from mean | Configurable |
| Williams %R | Closing price vs. high-low range | Configurable |
| MFI | Money flow (volume-weighted RSI) | Configurable |

Default Settings

Oscillator Lengths

| OSCILLATOR | DEFAULT LENGTH | RANGE | NOTES |
|--------------|----------------|-------|-------------------------|
| RSI | 14 | 7-21 | Standard period |
| Stochastic K | 14 | 7-21 | %K period |
| Stochastic D | 3 | 3-5 | %D smoothing |
| CCI | 20 | 14-30 | Commodity Channel Index |
| Williams %R | 14 | 7-21 | Williams Percent Range |
| MFI | 14 | 10-20 | Money Flow Index |

Voting Thresholds

| SETTING | DEFAULT | PURPOSE |
|-------------------|---------|--|
| Bullish Threshold | 70 | Level above which oscillator votes bullish |
| Bearish Threshold | 30 | Level below which oscillator votes bearish |
| Strong Threshold | 80/20 | Extreme levels for strong signals |

Settings Panel Breakdown

Section 1: Display Options

| SETTING | OPTIONS | RECOMMENDED |
|------------------|---------|-------------|
| Show Histogram | On/Off | On |
| Show Signal Line | On/Off | On |
| Show Vote Count | On/Off | On |
| Show Divergence | On/Off | On |

Section 2: Oscillator Weights

Each oscillator can be weighted 0-100%

Example configurations:

Conservative (equal weight):

RSI: 20% | Stoch: 20% | CCI: 20% | W%R: 20% | MFI: 20%

RSI-Heavy:

RSI: 40% | Stoch: 15% | CCI: 15% | W%R: 15% | MFI: 15%

Volume-Focused:

RSI: 15% | Stoch: 15% | CCI: 15% | W%R: 15% | MFI: 40%

Section 3: Sensitivity

| SENSITIVITY | VOTES REQUIRED | BEST FOR |
|--------------|----------------|-----------------------------------|
| Hair Trigger | 2 of 5 | Scalping, early signals |
| Normal | 3 of 5 | Standard trading |
| Rock Solid | 4 of 5 | Position trading, high conviction |

Preset Configurations

Preset 1: Scalping (Fast)

```
RSI Length: 7  
Stochastic K: 9  
CCI: 14  
Williams %R: 9  
MFI: 10  
Sensitivity: Hair Trigger
```

Use case: 1m-15m charts, quick entries/exits

Preset 2: Day Trading (Standard)

```
RSI Length: 14  
Stochastic K: 14  
CCI: 20  
Williams %R: 14  
MFI: 14  
Sensitivity: Normal
```

Use case: 15m-1H charts, intraday setups

Preset 3: Swing Trading (Slow)

```
RSI Length: 21  
Stochastic K: 21  
CCI: 30  
Williams %R: 21  
MFI: 20  
Sensitivity: Rock Solid
```

Use case: 4H-Daily charts, multi-day holds

Preset 4: Crypto Volatile

```
RSI Length: 10
Stochastic K: 10
CCI: 14
Williams %R: 10
MFI: 10
Sensitivity: Normal
Weight MFI: 30% (higher for volume focus)
```

Use case: BTC, ETH, high-volatility assets

Reading the Display

The Histogram

```
Strong Bullish: ██████████ (Green, tall)
Bullish:        ████████ (Green, medium)
Neutral:        █████ (Gray)
Bearish:        ████████ (Red, medium)
Strong Bearish: ██████████ (Red, tall)
```

| COLOR | MEANING |
|--------------|--------------------------------|
| Bright Green | 4-5 oscillators voting bullish |
| Light Green | 3 oscillators voting bullish |
| Gray | Split vote (2-3 each side) |
| Light Red | 3 oscillators voting bearish |
| Bright Red | 4-5 oscillators voting bearish |

The Signal Line

- **Above zero:** Bullish momentum bias

- **Below zero:** Bearish momentum bias
- **Crossing zero:** Momentum shift

Vote Count Display

```
[5/0] = All 5 bullish (very strong)
[4/1] = 4 bullish, 1 bearish (strong)
[3/2] = 3 bullish, 2 bearish (moderate)
[2/3] = 2 bullish, 3 bearish (moderate bearish)
[1/4] = 1 bullish, 4 bearish (strong bearish)
[0/5] = All 5 bearish (very strong)
```

Divergence Detection

Bullish Divergence

```
Price:      \      Lower low
             \
Harmonic:    /      Higher low
             /
```

Setting: Divergence Lookback = 5-20 bars (default: 14)

Bearish Divergence

```
Price:      /      Higher high
             /
Harmonic:    \      Lower high
             \
```

Combining with Pentarch

| PENTARCH SIGNAL | HARMONIC CONFIRMATION |
|-----------------|--|
| TD | Harmonic at extreme low, divergence forming |
| IGN | Harmonic crossing above zero, vote count improving |
| WRN | Harmonic at extreme high, divergence forming |
| CAP | Harmonic 5/0 bullish (exhaustion) |
| BDN | Harmonic crossing below zero, vote count declining |

Timeframe Recommendations

| TIMEFRAME | RSI | STOCH | CCI | SETTINGS PROFILE |
|-----------|-----|-------|-----|---------------------------|
| 1m-5m | 7 | 9 | 14 | Scalping |
| 15m-1H | 14 | 14 | 20 | Day Trading |
| 4H-Daily | 21 | 21 | 30 | Swing Trading |
| Weekly+ | 14 | 14 | 20 | Position (standard works) |

Common Issues & Solutions

| ISSUE | CAUSE | SOLUTION |
|-------------------|----------------------|-------------------------------|
| Too many signals | Sensitivity too high | Increase to Normal/Rock Solid |
| Missing moves | Sensitivity too low | Decrease to Hair Trigger |
| Choppy readings | Too short lengths | Increase oscillator lengths |
| Lagging signals | Too long lengths | Decrease oscillator lengths |
| False divergences | Lookback too short | Increase divergence lookback |

Advanced: Custom Weighting Strategies

Trend Following Weight

When trend trading, weight momentum oscillators higher:

```
RSI: 35%  
Stochastic: 25%  
CCI: 20%  
Williams %R: 10%  
MFI: 10%
```

Mean Reversion Weight

When range trading, weight range oscillators higher:

```
RSI: 15%  
Stochastic: 35%  
CCI: 15%  
Williams %R: 25%  
MFI: 10%
```


Volume Confirmation Weight

When volume matters (breakouts, news):

```
RSI: 15%  
Stochastic: 15%  
CCI: 15%  
Williams %R: 15%  
MFI: 40%
```

Quick Settings Checklist

Before Trading Session

- ☐ Correct timeframe selected
- ☐ Oscillator lengths match trading style
- ☐ Sensitivity appropriate for market conditions
- ☐ Divergence detection on/off as needed
- ☐ Vote count display enabled

Weekly Review

- ☐ Are signals too frequent/rare? Adjust sensitivity
- ☐ Are signals early/late? Adjust lengths
- ☐ Is one oscillator dominating? Check weights
- ☐ Are divergences accurate? Adjust lookback

Non-Repainting Guarantee

- All oscillator calculations use closed bar data only
- Vote counts lock in on bar close
- Histogram and signal line do not recalculate

- What you see is permanent once bar closes

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