# Harmonic Strength Index (HSI) for the Harmonic Pattern Collection

#### **Harmonic Strength Index (HSI)**

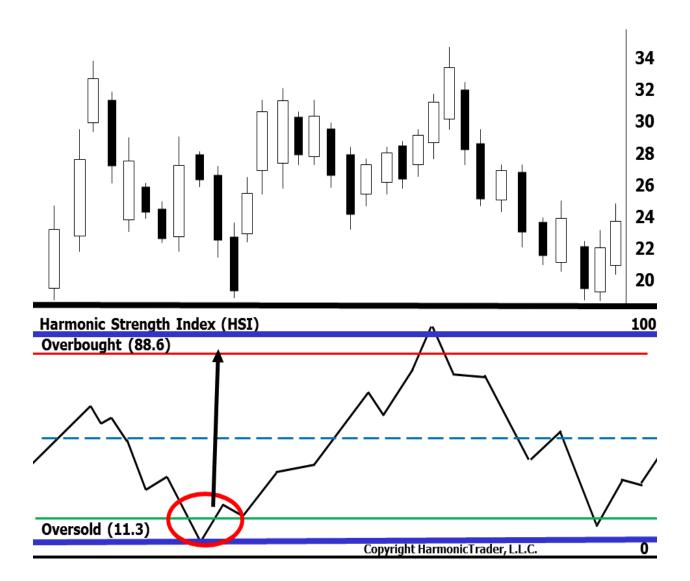
The Harmonic Strength Index (HSI) indicator is a proprietary formula designed to act as an early validation measure WHEN harmonic patterns exist. This is the best application for the indicator, especially as reversals from extreme levels effectively executions and confirm harmonic pattern completion support/resistance. A relatively new discovery, HSI represents a new area of consideration within Harmonic Trading. Developed by Scott Carney, the indicator is a broader representation of harmonic price behavior in the financial markets. Scott defined the rules for harmonic patterns and he has integrated effective indicator strategies to validate these price structures as trading opportunities. Although much of the inspiration for HSI was a result of extensive studies of Welles Wilder's Relative Strength Index formula, the metrics of what the indicator truly represents is founded more in harmonic measures. The basic technical concepts that define Overbought and Oversold levels are an essential aspect in the application of HSI.

#### **Harmonic Strength Index Basics**

The Harmonic Strength Index is an indicator that generally ranges between 0-100. These extremes are defined by unique harmonic levels that measure temporary Overbought and Oversold market conditions at the 88.6 and 11.3 indicator levels, respectively. The key challenge is to coordinate the price response following a pattern completion relative to the extreme HSI indicator reading. Patterns work well when this indicator confirmation unfolds because the structural signal is defining a unique environmental price level. These relationships take some time to be accustomed to their signals in relation to price analysis.

The HSI analysis focuses on a few distinct levels as it generally ranges from 0 to 100. Although the indicator can exceed these extreme levels, the most important aspect of the reading is when it reverses from an extreme range. To complement the 0 and 100 limits, we have created new price levels of the 11.3 and 88.6 that define extreme conditions. These measures are designed to reflect the harmonic limits of the indicator.

### Harmonic Strength Index (HSI) Bullish Reading



The oversold zone in the Harmonic Strength Index is delineated by the 11.3 reading. Although the indicator can exceed the area below 0 and go negative, the defining event is the actual reversal above the minimum 11.3 level once the extreme test has completed. Even in these situations, the indicator reversal is an early signal of impending price action.

## Bitcoin (BTCUSD): 30-Minute Bullish AB=CD

It is important to note that extreme tests that reverse below 0 from a negative reading typically signal a more exhaustive test of support. Also, these situations will require more time. The key is to focus on the individual HSI readings as the trading forms each price bar, as was the case for Bitcoin (BTCUSD) on the 30-minute chart. The price action stabilized at the completion of the Bullish AB=CD.



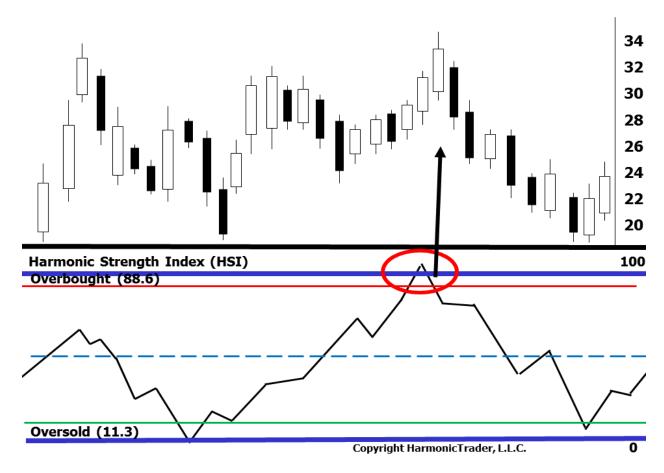
# Bitcoin (BTCUSD): 30-Minute Bullish AB=CD Potential Reversal Zone (PRZ)

As soon as the reading enters the extreme area, the initial trigger developed when the individual HSI reading stopped and reversed in the direction of the pattern. The harmonic support was confirmed by the price action at the AB=CD pattern completion AND the HSI reading extreme reversal. Once HSI reverses from the extreme, the reading can be monitored and employed in the trade management as well. The price action and HSI accelerated in the reversal direction after the indicator rallied from the Oversold zone (as marked by the Green triangle).



#### **Harmonic Strength Index Bearish Reading**

An HSI reading is considered overbought AFTER the indicator reverses OUT of the entire zone. The overbought range starts at the 88.6 but it can exceed the 100 level. These structural indicator readings at the extreme tests typically forms a sequential reversal. This means that the indicator reading will continue higher into overbought zone. However, as soon as the reading peaks out, it is quite common for the indicator readings to steadily decline thereafter. As I mentioned previously, this indicator is designed to express sequential movements that can define price environments that move from an overbought extreme to an oversold extreme and vice versa.



To generate an official overbought HSI reading, price action must exhibit a distinct reversal from the indicator after testing the 88.6 level at a minimum. Although the reading can trade as high as above 100 – or even 120, the key technical event that must occur to confirm the reversal is a reading that is trending out of this area. The indicator reading must enter the overbought zone and reverse shortly thereafter under the 88.6 minimum level. In its simplest application, these are the important singular events in each price bar that unfolds in the extreme zone of the Harmonic Strength Index that must be monitored and have particular significance when found with harmonic patterns.

## Standard and Poor's 500 eMini (ES#F): 60-Minute Bearish Deep Crab

The following chart shows the S&P500 Emini Futures Contract (ES) on a 60-minute basis where a Bearish Deep Crab possessed ideal Harmonic Strength Index confirmation on BOTH tests of the pattern. Although Type-I & Type-II harmonic pattern strategies employ the use of the Harmonic Strength Index confirmation as a critical validation of the trade opportunity, the importance of the reading to trigger BEFORE the price action provides the early validation signal, especially in a well-defined Potential Reversal Zone. As the Bearish Deep Crab pattern completed, the HSI indicator (RED ARROW) clearly pinpointed the short-term extreme within the larger zone.



## Standard and Poor's 500 eMini (ES#F): 60-Minute Bearish Deep Crab Potential Reversal Zone (PRZ)

The following chart the price action Potential Reversal Zone shows the individual price bars that completed in this harmonic resistance. Immediately after testing the entire area, the price action reversed sharply. The exact pattern completion point marked the reversal precisely at the Terminal Price Bar. The immediate reactive character in the harmonic resistance zone was a demonstrative change in character that the pattern was indicating with the rollover. This is the exact type coordination required to validate reversals and define profitable opportunities.



It is important to note that the Harmonic Strength Index reading must reverse from the extreme zone before considering the trigger valid. Due to the nature of the indicator, the trend will typically not begin to accelerate until the indicator declines below 88.6 HSI level. In the case of ES, the indicator provided the early trigger of a valid opportunity at hand.

#### **Harmonic Strength Index Conclusion**

Due to the nature of the Harmonic Strength Index formula, the expression of these readings has been designed to exhibit a predominant bias and reflect states of price action that have moved too far in one direction within a specific period of time. Sometimes, the indicator will move dramatically with the price. In other instances, the indicator will move from one extreme to the next with very little price movement. These situations must be distinguished. HSI is different from Relative Strength in that its formula has been designed to express these extremes as they relate to harmonic measures no matter how far price action has moved. In this regard, the indicator provides tremendous insight into the vitality of any price segment. Furthermore, the expression of this indicator in both extreme reversals and movement from extreme to extreme must be considered - Serial.

This is a general assumption that the indicator reading will move from one extreme to the next. The key trigger point is when the indicator leaves the extreme reversal zone. As the indicator reading moves into an extreme area, the ultimate reversal at the 88.6-100 line and/or the 0-11.3 level cannot be determined until after the structure has reversed from the range. One of the interesting aspects that was noticed early in the development of this indicator was a unique ability of these extreme reversals to establish countertrend moves where the indicator demonstratively continued in the reversal direction once it cleared the extreme range. Not to mention, the indicator trigger itself has been proven to be a leading indicator that provides the definitive countertrend price level for the change in trend. Once the indicator has peaked out, the trigger bar that denotes this change serves as an important price limit for the impending reversal.

Most important, the primary confirmation is defined AFTER the HSI reading reverses from the extreme. In the Harmonic Strength Index, as the indicator continues to register readings in the predominant trend the price will follow. In fact, a reading that enters the extreme zone will typically experience a price acceleration as each price bar registers a deeper level. For example, a market that has moved quickly with an HSI that exceeds the 88.6 line possesses inherent strength. It is common to see indicator readings that can rally above the minimum 88.6 level, continue above the 100 mark as price accelerates in a dramatic fashion. Regardless, the trend is respected until the indicator demonstratively reverses from the overbought extreme. Again, this is a clear leading indicator but helps to avoid mistakes such as early entries or attempting trades that lack confirmation. Of course, not every HSI signal is going to yield a sizable move. When these triggers materialize at harmonic pattern levels, they facilitate trade decisions to reduce risk and maximize management objectives. The Harmonic Strength Index will pinpoint Harmonic Pattern opportunities and define critical pivot points unlike any other technical measure. Although other technical confirmation strategies can be employed, the HSI indicator represents a primary validation factor in the execution and management at the defined harmonic patterns levels.