

# Pivot Points are not Accurate or are Different

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## Introduction

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This help topic discusses the reasons why the Daily Pivot Point values are different compared to another source or between users. Solutions are provided.

This help topic primarily applies to Daily Pivot Points. The [Pivot Points Accuracy with Number of Trades, Volume, Range, Reversal, Renko, Delta Volume, Price Change, Point and Figure Bars](#) section applies both to the **Pivot Points - Daily** and **Pivot Points - Variable Period** studies.

When you require accurate Daily Pivot Points, use the [Pivot Points-Daily](#) study and have it [Reference a Historical Daily chart](#) that has true Historical Daily data using Daily Open, High, Low, Close values from the exchange the symbol trades on.

If you are someone who is looking for 100% accurate Pivot Point values, then the only choice is to have the **Pivot Points-Daily** study refer to a Historical Daily chart with exchange data, as explained above. The reason for this is an Intraday chart will not necessarily have the exact Open, High, Low, Close values for a day for various reasons and the fact that the official Settlement Close of the day is not the final trade of the day.

Even when you are referencing a Historical Daily chart, you could still have differences with Pivot Points and the remaining sections in this help topic provide relevant information about this whether or not a Historical Daily chart is being used.

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## Referencing Historical Daily Chart

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The below instructions apply to the [Pivot Points - Daily](#) study and explain having it reference a dedicated

[Historical Daily Chart](#) for accurate Daily Open, High, Low, Close values for the highest degree of accuracy.

1. Open a Historical Daily Chart through **File >> Find Symbol >> Open Historical Chart** for the same symbol as the chart containing the **Pivot Points - Daily** study.
2. Open the [Study Settings](#) window for the **Pivot Points - Daily** study.
3. On the **Settings and Inputs** tab, set the **Reference Daily Chart for Data** study Input to **Yes**.
4. Set the **Daily Chart Number** Input, to the [Chart Number](#) of the Historical Daily chart you have opened above.
5. Press **OK** to close the **Study Settings** window.

## Different Session Times

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Session Times refers to the starting and ending times for a trading day. These Session Times can include just the day session or the full 24 hour session. The actual starting time is also relevant as well. In electronic futures markets, trading is 24 hours typically. Pivot Points lines can be based upon just the day only session or the full 24 hour session.

If you do not have exactly corresponding Session Times settings in **Chart >> Chart Settings >> Session Times** which are used by the **Pivot Points** study in Sierra Chart, compared with your other source you are comparing to, then the values are not going to match. If your source uses a full 24-hour session, then you need to be certain that your Session Times cover the full 24 hours and the **Start Time** in Chart Settings is at the beginning of the evening session in the prior day. If your source uses the Day session only for the Pivot Points, then you need to be certain to set your Session Times in Chart Settings to only include the Day trading session.

When an Intraday chart is being referenced, and not a Historical Daily chart, the necessary High, Low, Close, Open values for the Pivot Point lines calculations are determined according to the Session Times that the chart is set to. The highest high and lowest low in the prior trading day from the session Start Time to the session End Time are used. The close in the prior trading day just at the session End Time is used. The open is determined from the next day at the session Start Time. Remember that when using reversed Session Times, that the start time is considered in the prior day. Look at the Intraday chart to determine what these values are for a particular day that you have a question about the Pivot Point lines for.

In the **Pivots Points-Daily** study, if **Reference Daily Chart for Data** is set to No, then you must set the **Start Time** and **End Time** in **Chart >> Chart Settings** to correspond to the same Session Times used by the source you are comparing your Pivot Points to. For more information, refer to the [Session Times](#) section on the Chart Settings page.

If the **Pivot Points-Daily** study is referring to a Historical Daily chart because you have set the **Reference Daily Chart for Data** input to Yes, then you need to be certain that the Historical Daily chart you are referring to has same Session Times as the source you are comparing your Pivot Points lines to.

In most cases the Historical Daily bars cover the full 24 hour session and are not changeable. This is the case with the data from the **Sierra Chart Historical Data Service** . If the Pivot Points you are

comparing to are based upon the Day session only and you are referring to a separate Daily bar chart, then it is necessary to create that chart from Intraday data using an Intraday chart. For additional information about this, refer to the [Pivot Points-Daily](#) documentation.

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## Different Settlement/Close Price

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Another potential issue which is going to cause a slight or significant difference with **Pivot Point** values is the Settlement price. If you have set the input **Reference Daily Chart for Data** to **No**, then you potentially will run into a problem where you are not going to get an accurate Settlement price because the final trade of the day is not the same thing as the official Settlement price.

Therefore, your only solution is to refer to a Historical Daily chart built from Historical Daily data from the Data or Trading service you are using.

For instructions to reference a Historical Daily chart, refer to the [Pivot Points-Daily](#) documentation.

To have Historical Daily chart data, you may need to be on Sierra Chart [Service Package](#) 3 or higher to have access to the **Sierra Chart Historical Data Service**.

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## Missing Data

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Another possibility that can affect Pivot Points values compared to another source, is missing historical Intraday data in the Intraday chart that contains the **Pivot Points - Daily** study.

For additional information, refer to [Locating Missing Data in Charts](#).

If data is missing from the Intraday chart, perform a delete and re-download operation by following the instructions in the [Retrying Downloading of Intraday Data](#) section to download the missing data.

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## Insufficient Data Loaded in Chart

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If the Pivot Point formula choice uses a calculation that references the prior period, then there must be enough data loaded into chart to cover both the current period and the previous period. Otherwise, the calculations will only use the amount of data available and will therefore change the results when more or less data is loaded for the chart.

This is particularly important when using the **Pivot Points - Variable Period** study and using longer timeframes. For example, if the **Time Period Type** is set to **Months** with a **Time Period Length** of **2**, then there needs to be **4 months** of data loaded into the chart for the Pivot Points calculation to be accurate.

To load more days of data into the chart, refer to [Days to Load](#) Chart Setting.

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## Wrong Formula Type Input Setting

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If the **Formula Type** Input setting you are using in Sierra Chart is different than the source you are comparing to, then values of your Pivot Point lines will not match. Make certain you have the proper

Formula Type Input setting. For the list of available formula types see this [section](#).

## Heiken Ashi Study

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Due to the nature of how the Heiken Ashi study modifies price bars, if you are using this study and have it set to Display as Main Price Graph, then this will affect the value of Pivot Point Lines. As you change the timeframe per bar, it will cause the value of the lines to be different.

## Pivot Points Accuracy with Volume, Number of Trades, Range, Reversal, Renko, Delta Volume, Price Changes Bars

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This section applies to both **Pivot Points - Daily** and **Pivot Points - Variable Period** studies.

In an Intraday chart when the chart bars are based on **Number of Trades, Volume, Range, Reversal, Renko, Delta Volume, Price Change, Point and Figure Bars** and the **Reference Daily Chart For Data** Input is set to **No** for the **Pivot Points - Daily** study, then select **Chart >> Chart Settings** on the menu.

Make sure **New Bar at Session Start** is enabled. This will ensure that the first bar of the trading day will start exactly at the trading day Start Time.

The reason why this setting is important is because the bars in these charts do not have exact starting times. Therefore, they will affect the accuracy of Pivot Point lines compared to another source, compared to fixed time bars, or compared to a different **Number of Trades, Volume, Range, Reversal, Renko, Delta Volume, Price Change, Point and Figure Bars** setting.

Another solution to the problem is to have the **Pivot Points - Daily** study [Reference a Historical Daily Chart](#).

When the **Pivot Points - Variable Period** study is used on **Number of Trades, Volume, Range, Reversal, Renko, Delta Volume, Price Change, Point and Figure Bars**, and it has a **Time Period Type** setting of **Minutes**, then there is less accuracy with the calculations. The starting bar for the time period being referenced likely will contain earlier data than the Pivot Points study would be expecting. The ending bar for the time period being referenced likely will contain later data than the Pivot Points study would be expecting. There is no solution to this other than to use fixed time bars.

When the **Pivot Points - Variable Period** study has a **Time Period Type** setting of **Minutes** and the chart bars are based upon a fixed amount of time, then it is imperative the chart bars timeframe evenly divides into the **Time Period Length** setting. For example, if the time period for the Pivot Points study is 60 minutes, then the chart bars could be 1 minute, 5 minute or 10 minute or any other timeframe which evenly divides into 60 minutes.

## Manual Calculation for Verification of Data and Formulas

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If you are still not getting the result that you are looking for with the Pivot Points study, it is necessary to carefully examine the data in the chart to determine the yesterday's High, Low, Close and current days Open values. Make sure the Intraday Chart Session times are set correctly and determine these values

from the Intraday chart data, if you are referencing the Intraday chart. For complete details, refer to [Different Session Times](#).

The purpose of the above, is for you to understand how these values are determined, and to verify they are correct and see if there is any missing data in the chart.

Now that you have those values, it is necessary to follow the [documented formula](#) and manually calculate the pivot point values.

The purpose of the prior step is for you to validate and understand the formulas. If you require a different formula, let Sierra Chart support know.

Before contacting Sierra Chart support, make sure you fully understand how the calculations are done and you have manually gone through them and then if you have some kind of issue or question, you need to express clearly the basis of this issue or question. Otherwise, Sierra Chart Support will not be able to help you.

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