

# How to convert text to time in Excel (with examples)

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The capability to convert text values into recognizable time formats within Excel is an essential skill for efficient data management. Often, data imported from external systems or databases treats time entries (like 0830 or 144522) as simple strings of text rather than actual numerical time values. This prevents any meaningful calculations, such as calculating durations or comparing timestamps.

Fortunately, Excel provides robust tools, specifically a powerful combination formula, to rapidly and accurately transform these varied text strings into usable time values. Mastering this conversion process not only streamlines your workflow and prevents calculation errors but also ensures the accurate interpretation and reporting of critical time-based data. This guide details the precise methods and formulas required to achieve this crucial conversion, supported by comprehensive, step-by-step examples.

## Understanding Excel's Date and Time System

Before implementing the conversion formulas, it is vital to grasp how Excel fundamentally handles time formats. Unlike standard numbers, time in Excel is stored as a fractional part of a 24-hour day, represented by a decimal value between 0 and 1. For example, 6 AM is represented as 0.25, 12 PM (noon) is 0.5, and 6 PM is 0.75. If you see the number 0.1910 displayed in a cell, that cell actually holds the time 4:55 AM.

When you convert a text string like "0455" into a time value, Excel performs a calculation that results in one of these decimal numbers. The visible time format (e.g., "4:55 AM") is purely a formatting layer applied to that underlying numerical value. Our conversion method focuses on two critical steps: first, forcing Excel to interpret the text string as a potential time structure using a specific function, and second, converting that resulting structure into Excel's required numerical time format.

## Core Formulas for Text-to-Time Conversion

The methodology relies on two primary components: the **TEXT function** and a **double negative operator (--)**. The TEXT function is used to apply a specific time format (like "00:00") to the text string, which temporarily tricks Excel into recognizing it as a time structure. The double negative (--) then forces the resulting text output into a true numerical time value that Excel can use for calculations.

### Formula 1: Handling Hours and Minutes

This formula is ideal when your source data consists of four digits representing hours and minutes (e.g., 0930 for 9:30 AM). We use the "00:00" format string to impose the necessary colon separator within the string.

**=--TEXT(A2,"00:00")**

In this construction, the TEXT function takes the raw text input from cell **A2** (e.g., **0455**) and transforms it into the text string "04:55". The preceding double negative (--) then immediately converts this resulting text representation into Excel's calculable numerical time format (0.1910), which is ultimately displayed as **4:55 AM** after applying standard time formatting.

## Formula 2: Including Seconds in the Conversion

If your source text values contain six digits (HHMMSS), you must adjust the format string to accommodate the seconds component. This ensures that the conversion accurately captures all temporal data points. For example, if cell **A2** contains **045522**, this formula will return the decimal corresponding to **4:55:22 AM**.

**=--TEXT(A2,"00:00:00")**

This extended formula ensures the TEXT function inserts both the hour/minute colon and the minute/second colon, outputting the complete time string as text before the double negative forces the conversion into a numerical time value.

## Practical Application: Example 1 (Hours & Minutes Conversion)

In this first scenario, we address a common data entry challenge: a column containing four-digit strings that represent time, but which Excel currently interprets as standard text values. Our goal is to convert this text into calculable time values showing hours and minutes (HH:MM).

Imagine your dataset looks like the image below, with raw time entries located in Column A. We will use Column B to house our converted time values.

	A	B	C	D	E	F
1	<b>Text</b>					
2	0455					
3	1023					
4	1216					
5	1433					
6	1604					
7	2003					
8	2145					
9	2214					
10	0758					
11						
12						
13						
14						
15						
16						
17						

To begin the conversion, navigate to cell **B2** and input the appropriate formula for hours and minutes, referencing the first source cell, **A2**.

**=--TEXT(A2,"00:00")**

After entering the formula in **B2**, apply it to the entire range by clicking and dragging the fill handle down to the last row of your data (in this case, down to cell **B10**). You will observe that the formula successfully runs, but the resulting values in Column B are initially displayed as numerical decimals, consistent with Excel's internal time system.

	A	B	C	D	E	F
1	<b>Text</b>	<b>Time</b>				
2	0455	0.204861				
3	1023	0.432639				
4	1216	0.511111				
5	1433	0.60625				
6	1604	0.669444				
7	2003	0.835417				
8	2145	0.90625				
9	2214	0.926389				
10	0758	0.331944				
11						
12						
13						
14						
15						
16						

## Step-by-Step Formatting for Hours and Minutes Display

The output in Column B, while mathematically correct, needs visual formatting to be readable as actual clock time (e.g., 4:55 AM). This final step involves applying a standard time formats mask to the calculated decimals.

Follow these steps to correctly display the time values:

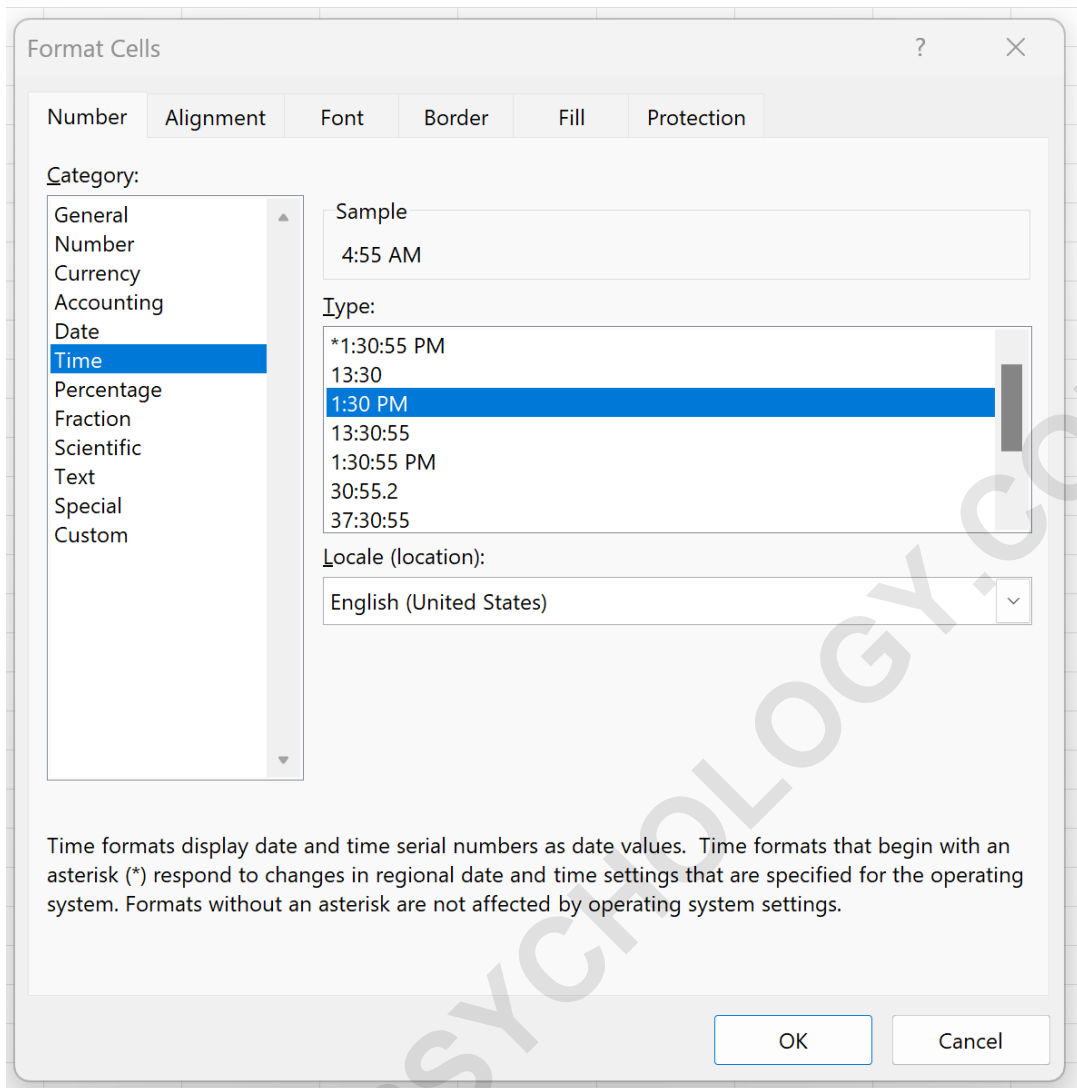
**Select the Range:** Highlight the entire range of converted values, **B2:B10**.

**Open Format Cells:** Press the keyboard shortcut **Ctrl + 1** (or **Cmd + 1** on Mac) to immediately launch the **Format Cells dialog box**.

**Apply Time Category:** Within the dialog box, select the **Time** category from the list on the left.

**Choose Format:** Select the desired format that displays hours and minutes, such as the standard **1:30 PM** option.

The visualization below shows the selection within the **Format Cells dialog box**, ensuring your decimals will be correctly interpreted as time.



After clicking **OK**, the conversion is complete. All the original text values from Column A are now fully functional time entries in Column B, displayed with hours, minutes, and the appropriate AM/PM designation. They are ready for any subsequent time calculations.

	A	B	C	D	E	F
1	<b>Text</b>	<b>Time</b>				
2	0455	4:55 AM				
3	1023	10:23 AM				
4	1216	12:16 PM				
5	1433	2:33 PM				
6	1604	4:04 PM				
7	2003	8:03 PM				
8	2145	9:45 PM				
9	2214	10:14 PM				
10	0758	7:58 AM				
11						
12						
13						
14						
15						
16						

Each of the text values in column A are now shown as time values in column B.

### Practical Application: Example 2 (Hours, Minutes, and Seconds)

This second example demonstrates the procedure for dealing with more precise time data that includes seconds. Here, the source data in Column A comprises six-digit text strings (HHMMSS), as illustrated below.

	A	B	C	D	E
1	<b>Text</b>				
2	045522				
3	102359				
4	121601				
5	143305				
6	160416				
7	200344				
8	214551				
9	221420				
10	075825				
11					
12					
13					
14					
15					
16					

To ensure that the seconds are correctly recognized and converted, we must utilize Formula 2, which incorporates the extended "00:00:00" format string. Enter the following formula into cell **B2**:

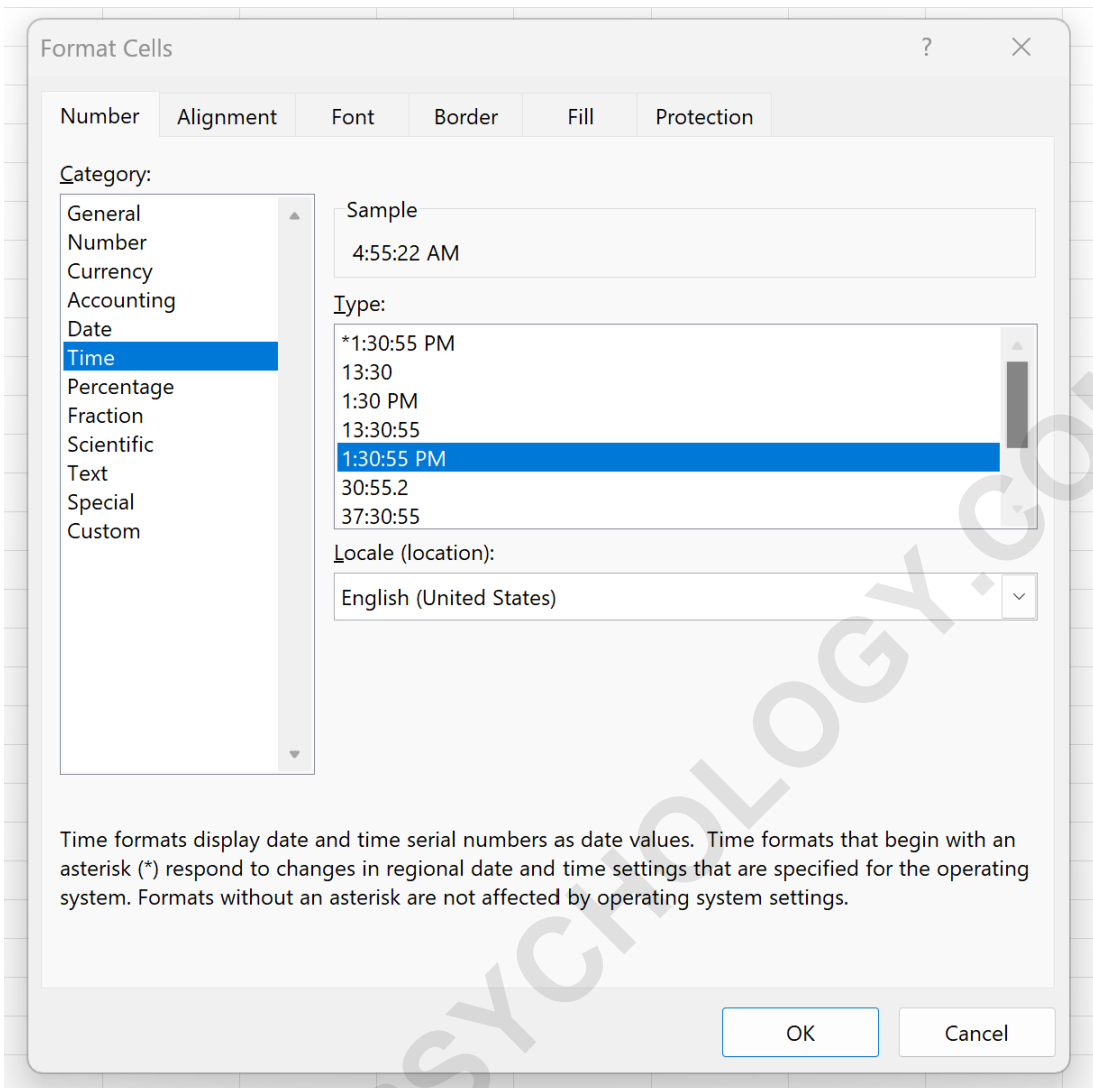
**=--TEXT(A2,"00:00:00")**

Drag the formula down Column B to process all the source data. The resulting cells will again display raw decimals, which are the numerical representations of the time values, awaiting the final formatting step.

	A	B	C	D	E	F
1	<b>Text</b>	<b>Time</b>				
2	045522	0.205116				
3	102359	0.433322				
4	121601	0.511123				
5	143305	0.606308				
6	160416	0.66963				
7	200344	0.835926				
8	214551	0.90684				
9	221420	0.92662				
10	075825	0.332234				
11						
12						
13						
14						
15						

## Formatting Time Values Including Seconds

To visualize these decimals as proper time formats with seconds, highlight the range **B2:B10** and open the **Format Cells dialog box** (**Ctrl + 1**). Select the **Time** category. This time, look for a format that explicitly includes the seconds component, such as **1:30:55 PM**, ensuring full precision is maintained.



Once **OK** is clicked, the decimals are instantly converted into readable time formats, complete with hours, minutes, seconds, and the AM/PM indicator. This confirms that the conversion from complex text values to functional numerical time data has been successfully executed.

	A	B	C	D	E
1	<b>Text</b>	<b>Time</b>			
2	045522	4:55:22 AM			
3	102359	10:23:59 AM			
4	121601	12:16:01 PM			
5	143305	2:33:05 PM			
6	160416	4:04:16 PM			
7	200344	8:03:44 PM			
8	214551	9:45:51 PM			
9	221420	10:14:20 PM			
10	075825	7:58:25 AM			
11					
12					
13					
14					
15					
16					

Column B now contains fully functional time values derived directly from the six-digit text strings in Column A.

## Conclusion and Best Practices

Converting text to time in Excel is fundamentally a two-step process that relies on correct formula application followed by proper display formatting. The critical component is the use of the double negative operator (--) combined with the precise format string within the **TEXT function** to interpret the raw numeric text correctly.

For successful future conversions, keep these key practices in mind:

**Consistency is Key:** Ensure that the format string ("00:00" or "00:00:00") exactly matches the length and composition of your source text values (four or six digits).

**Mandatory Formatting:** Always remember that the formula returns a decimal number. The time visualization (e.g., 5:00 PM) only appears after you manually open the **Format Cells dialog box** (Ctrl + 1) and apply the appropriate time formats.

**Debugging Errors:** If the formula returns a **#VALUE!** error, verify that the source cells truly contain text strings that fit the expected four or six-digit pattern without any extra characters, spaces, or leading/trailing symbols.

By applying these robust formulas and understanding Excel's underlying numerical time system, you can effectively transform raw, uncalculable text strings into useful, formatted time data ready for complex analysis.

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