

Setting Up Tach Trigger Levels

The following is a guide for setting up tach trigger levels.

Introduction

The waveform shown below was taken from a Bently rotor kit. The tach was selected as the input and waveform parameters were set to display several revolutions of the waveform. The green line indicates a trigger voltage level that had to be entered into the trigger level field from the tach menu before the RPM data could be read correctly. Values entered above the green line could cause the AMS 2140 Machinery Health Analyzer to double trigger.

Continuing to enter values below the red line would not trigger the tach.

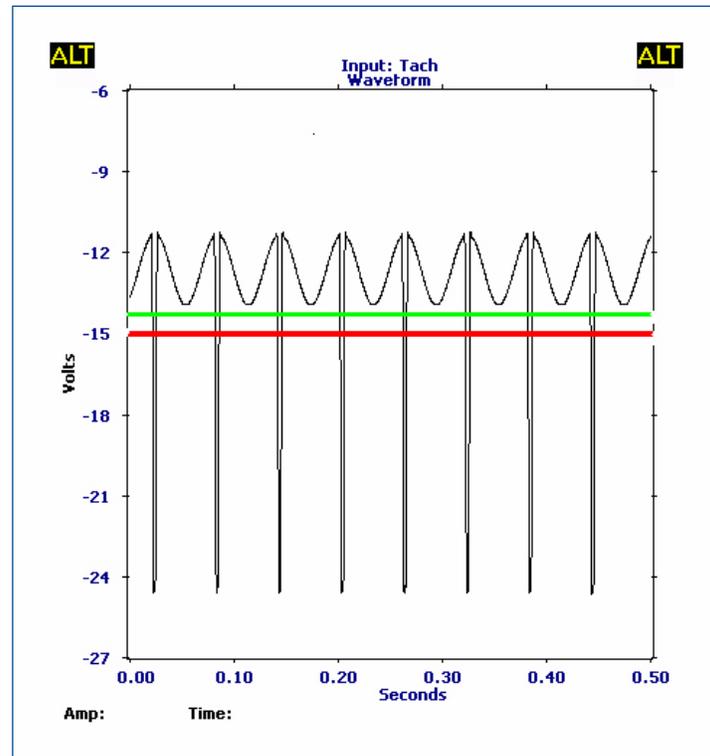


Figure 1

Setup Menu

From the Analyze Application, press **F1** and select waveform as the mode of operation and set Fmax to a value (see below). Select **F12** Input Setup, then **F2**, and select Tach as input and accept the default settings by pressing the enter key. This will return you to the Analyze Setup screen.

Go to the tach menu (**F7**) and verify the tach power is set to **ON**. Press the enter key to accept changes. Then collect the waveform. BY viewing the waveform, you can determine a voltage level to enter as a starting point.

Return to the tach setup menu and enter a voltage level; then press the **F10** key to show RPM. If the voltage level is correctly entered, the RPM value should match the RPM from the Bently panel. If not, continue to enter another voltage level until the correct RPM is displayed. Once the correct trigger level is entered, it will retain this entry until the Set Defaults key is pressed (**F12**) or you change it.

The parameters in the Analyze application used to collect the data from Figure 1 are:

Tach selected as the input

Waveform selected as the Analyze Mode

Fmax: 2000Hz

Samples: 1024

The expand key was used to get a better view of the tach revolutions after the stop key was pressed.

Note: The same results can be achieved from the Route Application by pressing the Run Analyze (F12) key from the point screen and following the above steps for Analyze.

Note: The tach data can be stored to a job and transferred back to a database for future reference.

Simplified Version

A more simplified way to do this is to select the Tach Setup Key (F5) from the ALT 2 page in the Route Application point screen and then select Set Trigger Level (F8) and enter a voltage. Then select show RPM (F10). Most Bently panels trigger on a negative voltage, so a good starting point is -10, changing the voltage in increments of .5 volts until the correct value is reached and the RPM matches the panel display.

From the Analyze Application, the Tach Setup key is F7.

Note: If you are collecting data using the Turck connector, you need the cable D24859. This will only give you data from the A channel.

If you need the tach signal and data, you will need the cable D24862 to and an A06290V adapter to collect data.

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