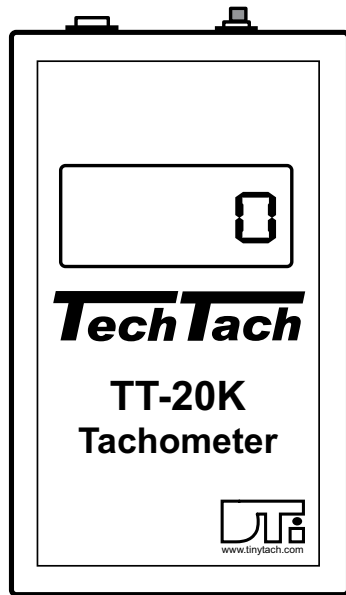


# TechTach TT-20K

## Operating Instructions



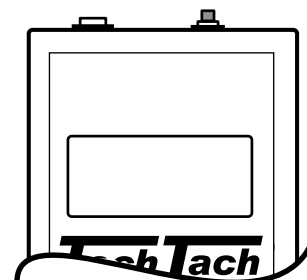
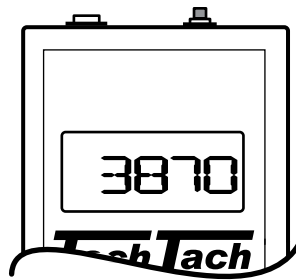
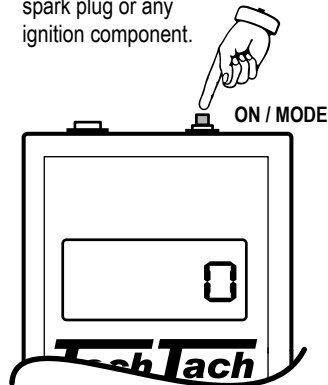
The **TechTach** is "Pulse" activated tachometer - i.e. the pulses generated by the ignition system on any gasoline engine can be detected and activate the electronic tachometer. The tach can be set to display proper RPM on a single cylinder as well as multi cylinder, 2 or 4 cycle, engine. By aiming the tach towards the spark plug (or ignition components) at a distance of approx. 4 to 15 inches (10 to 35 cm) the tach will display proper engine RPM. The shielded antenna lead enables "hands free" operation. The tach can also display the MAXIMUM RPM recorded after checking the engine RPM.

### Specifications:

- Activation:** Pulses from the ignition triggers the tach. The tach can be set to properly record any or multi cylinder engine, 2 or 4 cycle by changing the display mode (see advanced operation). Default is 1 pulse per revolution. Adjustable to 1 pulse per every 2 revolutions (720) or 2 pulses per revolution (180). A shielded antenna wire is included.
- Accuracy:** +/- 10 RPM in default mode and +/- 20 in 720 mode. Display updated every 0.5 seconds
- Max reading:** 20,000 RPM
- Battery:** Replaceable 9V transistor battery

### Basic operation:

1. To start the tach - push on the **ON** button and the tach is ready to display the RPM of an engine that produces 1 spark per revolution. Hold the tach 4 to 15 inches (10 to 35 cm) from the spark plug or any ignition component.
2. If the button is pushed once more after the reading; The tach will display the **MAX** RPM reached during the measurement. If the button is pushed again the display returns to normal RPM mode. The MAX RPM is however NOT cleared.
3. The tach will turn OFF automatically and the **MAX** RPM memory will be cleared.



See back for advanced operation →

LIMITED WARRANTY: Design Technology, Inc. warrants that for a period of ONE (1) YEAR from the time of purchase it will repair or replace the **TechTach** at no charge, if it fails to function properly due to defect in materials or workmanship. Damage due to improper care or use is expressly excluded from this warranty. All implied warranties are limited to the use of this instrument as directed above and Design Technologies does not assume of or authorize anyone to assume for it any other obligation. The instrument should be returned, prepaid to Design Technology Inc. for warranty consideration.



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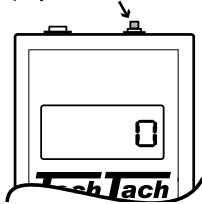
# TechTach TT-20K Instructions

## Advanced Operation:

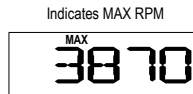
### Resetting the "Maximum RPM" display.

The "Maximum RPM" recorded automatically resets to "0" when the **TechTach** turns off.  
If you wish to reset the "Maximum RPM" display without waiting for the tach to turn off do the following:

1. Push the ON/MODE button and the Maximum RPM will be displayed.



2. If the button is pushed once again the display will return to "RPM" mode.



3. If in the normal RPM mode the ON/MODE button is pushed and **held down** for 5 seconds it first shows the "MAX RPM" last recorded and then the word "HOLD". The display will show "0" after another second and the MAX RPM is now reset.

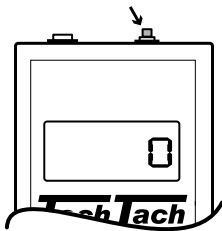


### Changing RPM displayed:

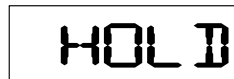
Determine the amount of pulses (sparks) per engine revolution. Most common is 1 spark per revolution - default value.  
If you are unsure, start the engine and read the display.

If the **TechTach** gives a reading that is: TOO HIGH: -Set the mode to "180".  
TOO LOW: -Set the mode to "720"

**Reset as follows:** - When starting the tach PUSH and HOLD the ON/MODE button for approx. **5 seconds**.  
During this period the word "HOLD" will appear and eventually "360" (default).



- By pushing the ON/MODE button again the dial will toggle between 180, 360 and 720.  
- After adjustment wait for 10 seconds and the display will return to show "0".  
- The **TechTach** will now show proper RPM during operation.  
- **If not used**, the **TechTach** will turn off automatically and default back to "360".

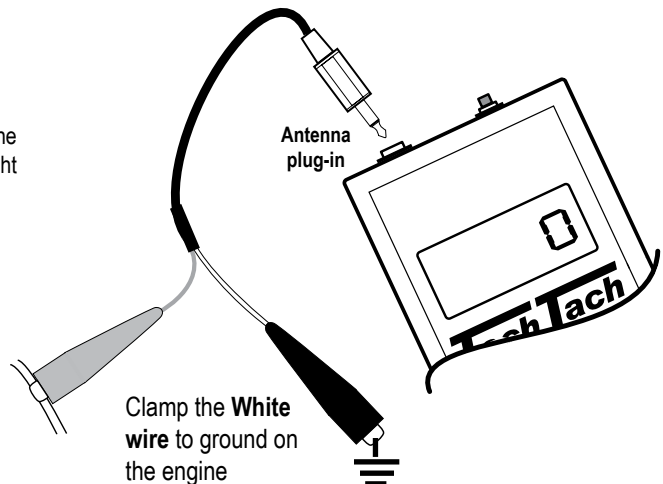


### Antenna Pulse Pickup:

The shielded antenna wire (included) is helpful for "hands free" operation and recommended if there is a difficulty in getting a stable reading of the RPM. An instable RPM reading is caused by interference of the ignition pulses picked up by the tachometer from the ignition system. Also, if a multi cylinder engine is tested, the tach might pick up interference from the different ignition pulses.

Plug in the wire to the tachometer and attach as illustrated.

Clamp the **Red wire** to a spark plug wire



Clamp the **White wire** to ground on the engine