

SERVICE BULLETIN

Speed Trap

How to Confirm the Actual Speed of a Vehicle

Use the formula below to calculate the vehicles actual speed using a speed trap.

The speed trap should be on a hard, smooth, level surface such as asphalt or concrete.

Measure out a distance to be used as the speed trap (D). NOTE: Longer speed traps will be more accurate.

There should be enough distance before the speed trap to allow the vehicle to accelerate to its maximum speed.

A stopwatch must be used to measure the time (T). A watch with a second hand will not work because tenths of a second must be used.

Test conditions:

- The speed trap should be on a hard, smooth, level surface such as asphalt or concrete.
- Drive in a straight line.
- Batteries must be fully charged and in good condition. It is recommended to test the batteries prior to the test to confirm that the batteries are in good condition and are fully charged.
- There should be no load on the vehicle while checking the speed.
- The vehicle should be at normal operating temperature when checking the speed. Cold vehicles will run slower than warm vehicles. If necessary, run the vehicle for 10-15 minutes prior to checking the speed.

Measure the time required to cross the speed trap at least three times **in both directions**.

Calculate the average of the times and then calculate speed with the formula:

$$\text{MPH} = \frac{D}{5280} \times \frac{3600}{T}$$

Where **D** = Distance in feet and **T** = Time in seconds

If a distance of 88 feet is available, a simpler formula can be used:

$$\text{MPH} = \frac{60}{T}$$

Where T = Time in seconds to cross 88 feet

Note: The rated speed specification a Taylor-Dunn vehicle is based on the following parameters:

- Driving in a straight line on a hard level smooth road surface such as concrete or asphalt
- Fully charged batteries
- Driver only (200 pounds)
- Properly inflated tires
- Standard vehicle, no options