

## CHOOSING THE RIGHT SIZE RADAR SIGN

### LED Sign: Display Readability Chart

Character Height	10"	12"	14"	18"	24"
Readable Distance	500'	600'	700'	900'	1200'
Drive By Speed	Seconds of view time				
25 MPH	14	16	19	24.5	33
35 MPH	10	12	14	17.5	23
45 MPH	8	9	11	13.8	18
55 MPH	6	7	9	11.4	15
65 MPH	5	6	7	9.4	13
75 MPH	5	5	6	8	11

**GREEN squares are considered ideal.**  
**YELLOW squares are marginally acceptable.**  
**RED squares are not acceptable.**

### Considerations when choosing the size of your sign display

- How much of a straight-away road do you have in front of your sign?

If you have less than 600 feet, then the value and cost of a 15 to 18 inch display is wasted. Keep in mind that advertised radar detection distances are a lot like automobile miles per gallon claims. The auto that claims an EPA rating of 20 MPG will probably get 14-16 MPG in the real world. The same is true with radar detection. A claim of 1/4 mile (1320 feet) may be true in a test environment (such as a flat, empty highway with no poles, trees, or other roadside clutter, and a single 18 wheeler coming towards the sign).

The real world of all different size vehicles and terrains generally results in a 400-600 foot detection of many vehicles. Even if you had a radar sign that detects vehicles at 1/4 mile, you would need 25 inch high digits for the driver to make them out that far away.

On a 25 MPH road you should have at least 200 feet of straight-away to allow time for the sign to display and the driver to see the sign, react, and slow down.

(more)

- **What is the speed limit of the road you want to install the sign on?**

If the speed limit is 35 MPH or less, even a ten inch display is readable for a long enough period of time for a driver to see the sign and slow down. The TC-500 models have 12 inch displays that are easily viewable at over 500 feet away.

As shown in the chart above, for speed limit roads of 45 MPH and higher, a 15-18" display is appropriate. For speed limit roads of 40 MPH or less, a 12" display will be effective in slowing drivers at a lower cost to you.

- **If you choose a solar model, what size batteries and solar panel are required?**

The larger the display, the more power it consumes. To ensure you have enough power for 7x24 operation, the 15 to 18 inch displays often require multiple 28 to 40 amp hour batteries. This adds to the cost and can require a separate housing from the display itself. The TC-500S requires only two 18 amp hour batteries, and are included in the display housing.

The larger battery requirements results in a larger solar panel. To ensure you have enough power for 7x24 operation, the 15 to 18 inch displays (and even some smaller displays) usually require an 80 to 120 watt solar panel. Without the larger solar panels, the larger display signs can run out of power during the night and stop functioning. The larger solar panels add to the cost. The TC-500S uses a single 40 watt panel and can run for several days without solar recharging. The larger panels also end up giving you a more unsightly solution on a pole.