SPECIAL NOTES CONCERNING PHOTO CELLS

SPECIAL CONSIDERATION FOR HIGH HEAT APPLICATION OR UNITS TO BE USED IN DIRECT SUNLIGHT

Any time photo cells are to be used where there is the possibility of high heat or direct sunlight, there are precautions that must be taken to keep the heat away from the photo cell. We recommend that the photo cells be mounted inside of a white PVC tube, preferable a thick wall type. The photo cell should be mounted on a very rigid support and then the plastic tube should be inserted over the photo cell. Any type material that would conduct the heat and transmit it to the photo cell housing must be avoided.

SPECIAL CONSIDERATION FOR INTENSE LIGHT APPLICATION

A photo cell that is being used in an application that is exposed to intense sunlight or in a highly reflective environment may need to blind the area around the light source or reflector. You should have a 12 inch by 12 inch black square surrounding the light source which means that the light source or the reflector (the starting line requires a different setup) will be mounted in the center of the black square. This square could be made of plywood and must be painted with a flat black paint to absorb surrounding light. The reflector can further be shielded by mounting a tin can (coffee can) in the center of the black square and the reflector inside the center of the tin can. This will keep direct sunlight from shining on the reflector and overpowering the infrared emission from the photo cell.

SEE MANUAL ON SETTING UP AN ACCURATE DRAG TRACK STARTING LINE

If you are using infrared SBL1 reflector type infrareds on the starting line with reflectors on the outside of the track, you must be very careful setting up the starting line stage beams. When the vehicle rolls out of the stage beam, and the infrared sees the reflection off of the reflector, the E.T. clock begins and the reaction time is clocked. When you are using reflector type infrareds at the starting line, there is always the possibility that the vehicles chrome or polished aluminum wheel could reflect the light back to the infrared as it is rolling forward and prematurely trip the Portatree III and give a false reaction time.

You must shield the stage infrared by first setting the detector up and setting the rollout, and then placing a 1 inch water pipe that is 24 inches long between the infrared and the reflector, at the infrared. The water pipe will limit the field of vision of the infrared and will reduce if not eliminate the false signals.

12 inches = 30.48 centimeters
1 inch = 2.54 centimeters
24 inches = 60.96 centimeters