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Autocross Timing System
Operating Instructions

1. Set up the timer, and photocells to where you need them using the included tripods. <u>DO NOT TURN ANY DEVICES ON AT THIS TIME</u>.

2. Once you are happy with the location connect all devices with your wires. On the CP520 and the photocells, respect the color-coding when setting up (green to green, black to black.

3. Align the photocells: The emitter receiver unit must be aligned to the reflector. When you first turn on the photocell, two lights turn on and then the "battery" light turns off. The "signal" light goes off when the unit is aligned properly. Use the sight grove along the top to help with alignment.. The red signal light will go out when the alignment is correct. Every time something passes through the beam, the signal light will flash. Test this with your hand. The start photocell sends an impulse to Input "1" on the CP520 and the finish photocell sends an impulse to Input "2". Note the maximum width of the beam is 80 feet.

4. Next the CP520: I have already set the proper mode so it is fairly easy for you at this time. For normal timing this mode is real time Start-Finish $1/1000^{th}$ precision. Hold the "ON" button down for a few seconds. You will then see it come to life and print out a bunch of information on the printer (default settings). The first screen you come to is "Enter time for Synchro". You may enter "zeros" or set to the time on your watch. Just hours and minutes. Press the "#" button when complete. The screen will then say, "Ready for Synchro". Press the Green "1" button and the clock will start.   Please refer to the manuals for more detailed information. It is very easy to use. The "blocks" need to be turned off before you actually run cars. Press the 'Red' buttons on the lower end of the unit to do this. With the blocks on, the photocells will not send impulses into the CP520 and you will see **---** and **---** on the upper right and upper left of the LCD display of the 520. With the blocks off, every time a car passes the start or finish lines, it will be recorded on the timer and printed out. Those "bars" in the corners will be gone and replaced by a run number on the left and "MAN" on the right.

7.   Timing cars:
  o   Basic Timing w/ the CP520
  o   The Blocks are off (Red buttons).
  o   Car 21 is ready to start: Enter "21" and then press E1.
  o   Car 21 leaves and crosses the start line.
The printer will show 21 and a time of day.
The running time of Car 21 is on the LCD screen.

Car 18 is ready to start
Press 18 and E1 and let the car go across the start line
The printer will show 18 and the time of day
You will not see the running time of car 18 yet.

Now you have two cars on course at once.
If they both finish in the order they started, you don't have to press any buttons.
The timer automatically prepares them to finish in the order they started.

Car 21 passes the finish line. The printer shows a 2 and the time of day on one line and the "Net time" of car 21 on the next line.

You can keep starting cars as they finish and have fun. Be relaxed, it's not hard. If cars pass each other or go off course, refer to the other documentation to solve those problems. E1 is a start and E2 is a finish. E2 is only needed in special circumstances such as when a car passes another car.

To turn off the CP520 press the F button and scroll up with the green arrows to "power off" and follow the messages.

Some quick tips.

To change the next expected car to finish enter the car number followed by E2.

To cancel or abort a car that goes off course enter the car number then press R then press 0. This disqualifies that car.

It is usually best to create a new run to have the same cars go through the course again. Use the F key and scroll down with the green order to new run. Do not change the timing mode.

Thanks and have fun!