Finding CTS Set-Up Problems BEFORE They Occur

The Difference Between the Start & Backup Start Positions on the Cable Harness

At the end of the timing harness are two connector positions labeled "Start" and "Backup Start." The start system should be plugged into the "Start" position. The "Backup Start" position is no longer used, but was previously used with a button to get a manual, backup start. To correct for the slower manual start, the CTS5 automatically adds 0.15 seconds to each time. If the start system is accidentally plugged into the "Backup Start" position, 0.15 seconds will need to be subtracted from each time to get the correct time. The CTS6 treats starts from both the "Start" and "Backup Start" positions the same so that there is no need to subtract 0.15 seconds if start cable is plugged into the wrong position.

A related problem occurs if an automatic start is being used, but the timing system is set for a manual start rather than an automatic start (under the SETUPS menu). This will also result in 0.15 seconds being added to each time.

Are Your Setups Correct?

A "best practice" suggestion is to always print a record of the setups prior to the start of the session. This record provides a quick check as to the system having been setup correctly, and it can be kept with the meet results in case a future question arises. This can be done by first selecting the "SETUPS" soft key and then selecting the "Printer Setup" option. The "PRINT SETUPS" soft key can then be pressed.

Testing the CTS System

After all the equipment is set-up, the testing should be done in the following order:

- 1. Start the timer from the starting unit and not the CTS.
 - A start signal detected by the CTS indicates a good starting unit connection. This can't be determined by a keyboard manual start.
- 2. Starting from an outside lane, trigger the pads/buttons in lane order $(1\rightarrow 2....\rightarrow 8$ or $8\rightarrow 7....\rightarrow 1)$.

In a relatively quiet venue the beeps from the console are frequently loud enough for the CTS operator to check the buttons and pads with no additional help.

When the CTS console is connected to the touchpad/backup button cable harness with lane 1 closest to the timer, the lane order is said to be normal. The configuration of some pools is such that lane 8 (or 6, 10, etc.) is closest to the timer. In this configuration, the lane order is said to be reversed. In this latter case, the CTS must be configured such that it knows the lanes are in reverse order. If this isn't done, the times will be reversed for the lanes (1 with 8, 2 with 7, 3 with 6, 4 with 5). "Normal" or "Reversed" lane order can be selected by going to the "POOL" submenu of the "SETUPS" menu. Be sure to save the set-ups so that this setting is retained if the CTS console is subsequently turned off.

It is especially critical to check this setup when using a CTS unit owned by VSI as these units travel from venue to venue. If the configuration for your meet is normal and the configuration from the previous meet was reversed, the Timing Judge will be none too happy once this problem comes to light!

Note that if all the lanes are tested simultaneously by the timers just prior to the start of the meet it is possible that you'll find all the pads and buttons are working while missing the fact that the lane order is the reverse of what it should be, hence the suggestion to test the buttons/pads in lane order..

3. In each lane first trigger all the buttons and then trigger the touchpad last.

An individual watching the CTS console as the buttons/pads are triggered can determine that everything is plugged into the correct position (if the signals received are in the order of A, pad, C, B for example, then the pad must be plugged into the "B" position and the "B" button must be plugged in the pad position. Likewise, the same determination can be made by scanning the printout.

If you just go out and randomly push the buttons and touchpad you will not be able to tell that they are connected incorrectly; you will only know that all of the buttons work. Proceeding in an orderly fashion does not take any longer but it does give you more useful information.

If working alone, the above approach also has the advantage of confirming that two of the buttons pushed work as "0:00.00" will register on the scoreboard after two button signals have been received.