

## Pool Set up

### Location

- Place Timing Console on the side of the start end of the pool, behind the starter/deck-ref area.

### Timing Harness and Pad Layout

- Run Timing harness from the farthest starting block to the nearest starting block. NOTE: there is only one connection end of the Timing Harness and the timing connections are numbered from that end, starting with the Starter input and then lanes 1 through 10. If this doesn't match the physical configuration of the pool, don't worry – it will be taken care of in the console. This harness should have the lane inputs labeled "Prime and A".
- OPTIONAL: Run a second Timing harness with "B and C" labels on the lane inputs in the same manner as the first for additional backup buttons.
- Run harness extension cable along the side of the pool from the Start end to the Far End location.
- Run timing harness cable (Prime and A lane inputs) across far end of the pool and connect to extension harness.
- Place Colorado touch pads in the water at the start/finish end of the pool using Velcro lined brackets made especially for the facility.

### Start System

- Set up the Colorado Infinity start system near the start end of the pool. Starter and Deck Referee can confirm exact location.
- Plug starting microphone into plug on starting unit (1/4" stereo plug)
- Plug starter output (1/4" stereo plug) into timing harness (2-prong banana plug).
- Plug speaker cable into starter using short 1/4" stereo plug to 2-prong banana plug adapter. Run speakers to the far side of the start end and far end of the pool using banana plug daisy chain cables.

### System 6 Console

- Connect prime Timing harness from start end into "near end pads" 50 pin connector slot on the back of the system 6.
- Connect optional B/C backup timing harness into alternate near end slot. (note, it doesn't really matter which slot is used for which since the Prime/A cable uses the top 25 pins and the B/C cable uses the bottom 25 pins on the 50 pin connectors)
- Connect far end harness to the "far end pads" slot on the back of the system 6
- Connect scoreboard cable using the 1/4" stereo plug.
- Connect the office computer running Hytech Meet Manger software using the serial (9 pin) Com 1 port. The USB slot on the system 6 should not be used as

USB does not support the data distance often required for the set up of the timing console vs. the office computer. If a laptop computer is being used without a serial port, a short USB to serial pin adapter cable can be used. Be sure and load any required drivers onto the laptop. (Save for future use).

- Connect a printer to the parallel or USB port on the system 6. A good printer is Brother 5140.

## System 6 Setups

Go to setups in the softkeys. Scroll down up/down through the items on the left side of the screen with the first 2 soft keys. Within each item group the sub-items are displayed in the middle of the screen and are numbered. Pressing the corresponding number on the number pad accesses the option. Some options toggle between 2 (sometimes more) options when pressed; others open up a dialog box for more number entries which is done from the number keypad followed by <enter>. Many are not applicable for EIS meets and are noted with \*.

### Start/Finish

1. Where to start races with even number of lengths (IES: that is all but 25 y and 50 m races) should always be NEAR END
2. Where to start races with odd number of lengths (IES: that is 25 y and 50 m races). Depends on whether swimmers will start at far end and swim to finish pads or start at near end and have timers walk to far end. Toggle between NEAR END and FAR END by pressing 2.
3. Toggle, IES: DO NOT clear lanes automatically will leave the times on scoreboard as long as possible (NOTE: times will always clear upon start of next race) Selecting Clear Lanes Automatically clears the scoreboard upon selecting next heat/event.
4. IES: \*N/A as this requires relay judging platforms that we don't have
5. IES: unless you don't have pads for some reason, primary finish should be by PADS
6. IES: If you're using pads at the far end, toggle to PADS. If there are no pads but you have buttons, toggle to BUTTONS. If using only watches, it doesn't matter.
7. IES: \*N/A (doesn't matter since we don't put the records in the System 6)
8. IES: Post times, this allows the split time of the lead swimmer to display on the scoreboard.

### Hardware

1. Speaker volume. Select 1 and enter 0 if you don't want to hear the beeps when you press buttons on the console. Otherwise you pretty much need to select 3 to hear them. Push the number on the key pad and then <enter>.
2. Since the back light intensity doesn't work, it doesn't matter what number you enter (This is a screen problem that Colorado knows about).
3. Since we load the meet from the office Hytech computer and don't make further adjustments, it doesn't matter what this is set on. But default to NOT allowed so no one can make adjustments without you knowing.
4. We don't use this feature but leave on BUTTONS
5. We never use this feature; leave on BUTTONS
6. We don't use this. Leave on .75 seconds
7. If you are using pads on the far end and want to record the split times, toggle on USE FAR END SPLITS, otherwise DO NOT USE FAR END SPLITS. It will simplify things during in water starts on short relays to have them off. You can also toggle them on/off from the Quick Options soft key menu. If you want them on for some reason, you cannot turn them on in the middle of a race – it has to be enabled before the start of the race (this is important if someone is going for a split time at the far end).
8. IES: N/A since we don't have the equipment. Leave on DO NOT USE
9. IES: *not sure, we could try this!*
10. (Option 0) IES: N/A if you are using the mechanical scoreboard in the trailer. This only applies to LED scoreboards.

### Timing

1. Toggle: always use 0.01
2. IES: Always DO NOT USE automatic backup time adjustment. This allows the office staff and Admin Ref to use Hytech to make the proper adjustment.
3. Pad split delay is the amount of time the pads are inactive after a lap touch (and how long the split time is shown on the scoreboard) allowing the relay swimmer to exit the pool without adding a touch. Normally set to 15 seconds. Can be longer in 50m pool (20 sec).
4. Same as 3 for far end pads.
5. Feature provides notification to operator of a missed or defective pad, based on a comparison of previous split times. When enabled, the lane will turn a shade darker. Has no effect on the timing. Your choice. Try it on DISPLAY and if it is unhelpful turn it off.
6. Pad delay at start keeps the backstroke swimmer from triggering the pad at the start of the race. Can be relatively short. Suggest 10 seconds. **Also sets the time for displaying reaction times, if we had the capability.**

7. IES: N/A since the lengths don't show on our one lane scoreboard.
8. IES: Normally count up on display. Operator choice.
9. IES: N/A since we don't enter DQ's at the console. Normally SHOW TIME.
10. (Option 0) Enter the time you want to have the pad and backup time comparison show up as a discrepancy in parenthesis after you hit store/print. Normally set to 0.3 seconds. Note that this will bring up the discrepancy screen anytime this time differential is exceeded. Since we are not accepting the times, you merely quit out of the discrepancy screen, or it goes away at the start of the next race. However, if you see a legitimate "pad malfunction" (e.g., swimmer missed the pad at the finish of the race), it is your job to note this on the print out.  
*We could try setting it for longer – 9 seconds is the most allowed – but this may make it harder in the office as it would not automatically show the .3 sec discrepancy.*

## Pool

Note: menu items 1-3 are very poorly designed by Colorado, IMO. Maybe they are useful at fixed facilities. Best to first complete 2 and 3 before mapping lanes on menu item 1.

1. Lane mapping is required to show how your pool is configured. Upon selecting you see a sub menu:
  1. Resets lanes to normal order if they have been adjusted otherwise.
  2. Depending on where your console is set up relative to the right (lane 1) side or left (highest lane) side of the pool, you will need to toggle this. You will see the Physical lanes on the left side of the screen switch back and forth. Since lane position 1 on the harness is always closest to the console, you need to reverse the lane map if the console is set up on the left side of the pool. Then ensure that the Display (corresponding to the harness) lanes and the Physical (corresponding to how the lanes are actually numbered in the facility) lanes match correctly. Here are some examples:
    - . Pasco. A 7 lane pool with console on the left side. Set menu 2 and 3 to 7 lanes. Toggle menu 1 submenu 2 to reverse the lanes.
    - . Wenatchee. A 10 lane pool with console on the left side. Set menu 2 and 3 to 10 lanes. Toggle menu 1 submenu 2 to reverse the lanes.
    - . Ellensburg (this one is hard). A 10 lane pool that we use 8 lanes. Set menu 2 and 3 to 10 lanes. Toggle menu 1 submenu 2 to reverse the lanes. Ensure that lane 10 is plugged into harness position 1, and so forth. Note: you cannot improve anything by activating menu 1 submenu 3 or 4 to shift the lanes. So just leave

it 1-10, 2-9, etc. You will then have to turn off lanes 1 and 2 on every race. There appears to be no other way around it.

**. Any other facilities to include description?**

3. Shifting lanes up and down only helps if you want to renumber your facility lanes. We do not normally do that so leave these alone. If you get too messed up, just hit 1 and it will reset everything.
4. See 3 above.
2. Enter the number of lanes in the pool on the key pad. This will always be the number of lanes in the pool unless you're not using all of the far lanes. If you're not using all of the near lanes, but are set up on the far side (like at Ellensburg) you have to enter the total number of lanes.
3. Match the number of lanes in the pool you entered in 2. There is not point to do it differently.
4. Enter length of pool on keypad. Either 25 or 50
5. Toggle between yards and meters.

### Scoreboard

Note: this is also a complicated feature that they have done little to simplify. But since the IES scoreboard is a reflective one-line scoreboard, many of the options are not available anyway.

1. Activates a self test on the scoreboard which cycles all the operations of the displays. Toggle again to turn off.
2. \*IES: no need to define scoreboard modules. DO NOT CHANGE anything.
3. \*IES: no need to define blank modules. DO NOT CHANGE anything.
4. \*IES: doesn't matter with 1-line scbd. Keep at lowest value possible
5. Defines number of times the scores will cycle through display. Limited by the start of the next heat. Suggest 3 times. Enter from keypad
6. Defines the time in seconds that each individual time result will display while cycling. Suggest 2 seconds. Any longer and it will never complete a cycle and it looks like it's not moving.
7. Accesses a submenu to define the various displays available. For IES meets, keep on "(0F) Place order". Can show Event/Heat and/or Time of Day, but probably not necessary.
8. Toggles between LANE and PLACE order. On multi-line scoreboard PLACE lists first place first. On 1-line scoreboard, it reverses the position of the lane and place indicators so it no longer matches the label (or expected order) on the scoreboard. Always keep on LANE.
9. Toggles between CUMULATIVE and SUBTRACTIVE (or lap) time for splits. Always keep on CUMULATIVE.

10. (option 0) Emulate 10 lane scoreboard shows lane 10 as a 0. Do Not Emulate shows lane 10 as an A. (If we had a 12 lane pool, with a 1-line scoreboard, you'd probably want to not emulate so 11 and 12 show up as B and C instead of 1 and 2, which are obviously already used.)

#### Printer

1. Activates a submenu for selection of store/print format
  - Race Summary – includes results in both lane and place order. ALWAYS include this.
  - Splits Summary – Chatter splits are already included (i.e., splits print before the race summary in the order they are made. This is an artifact of the old dot matrix printers that would print the split time when the pad was touches, thus creating “chatter”) Split summary prints a set of splits in columns by lanes. Not typically necessary.
  - Relay Summary – Would only be necessary if electronic relay judging were being used.
  - Form feed – this sends the command to the printer to print the results of that race. Without it, the printer may wait til it has a full page of data to print. This should ALWAYS be included, and it should be the LAST item in the list.
  - Use <Quit> to exit out of the submenu
2. The sponsor's message prints at the top of every page. Selection of this option opens up an archaic menu that is very difficult to use. The default is “Colorado Time System 6” and there is really no reason to change it.
3. Toggles between Always and DO NOT print on Store print. You must have included a “form feed” command in option 1 for this to work properly. If not, you won't get a print out unless you hit the print/go button on the printer itself. ALWAYS should be selected to ensure consistent printouts. Note: Be sure and <quit> out of the timing discrepancy screen which comes up after races where there was more than .3 seconds difference between pad and button. If you select [OK to print] you will just get another print out of the same results.
4. Activates a submenu that allows you to select printer format with codes. This menu is predefined based on options 5 (type size), 6 (lines per inch) and 7 (type of printer). So there is really no reason to alter this menu.
5. Type size needs to vary based on the number of lanes in the pool:
  - Pica: 6 lanes will print across the page without wrapping
  - Elite: 8 lanes
  - Condensed: 10 lanes
  - Super Condensed: 12 lane poolToggle to the appropriate option

6. Toggle to select 6 or 8 lines per inch, whichever works better on the printouts.
7. Toggles between several printer types. HP-PCL seems to emulate the popular Brother 5140 the best.
8. Toggle minutes. No need to leave space for hours unless really long distances are involved.
9. **Not sure what effects this has...**

### Event Sequence

Select one of the options from the keypad to define the meet. Typically the office will download the meet from Hytech into slot 8 or 9. The rest are self-explanatory and do not need to be used.

1. None: only allows the operator to define the race lengths from the console at the start of each event. No other data is available or selectable
2. through 7. Are as listed
8. Typical slot where Hytech will put the meet. You must be out of setups and not in a race for the operation to be completed.
9. Optional slot for IES meets. Can use for finals of prelim/finals meet.
10. (option 0) Allow the operator to edit the events from a softkey submenu. Can be used to edit any of the event sequences defined in 2-9. Should not have to do that, however. But it is available if in a bind with communications to Hytech.

### Set Time/Date

Note: System 6 has a highly accurate timing chip, much more accurate than the standard computer chip.

1. Activates a dialog box to enter the time of day in 24 hr format (see option 3). Enter 6 digits. Press C/E if you make a mistake and reinput. Then <enter>
2. Activates a dialog box to enter the date in mm/dd/yy format even though the year shows up as 4 digits, it will only take the 2 digit year input. Enter 6 digits total. Press C/E if you make a mistake and reinput. Then <enter>
3. Toggle between 12 and 24 hr format. Must be in 24 hr format to enter P.M. times in option 1.

### Wireless

Note: Option only applicable if communication to scoreboard is to be via wireless. This is not a recommended option. If it is used, be sure and change the channel on the receiver before changing the channel on the transmitter.

Note that the System 6 has an internal battery that will last from 1 to 2 hours (not intended to run the meet). The battery only charges when the system is off.