

# autocoach:

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## ***Operation Guide – Race Meets***

Software Version 5.0 +

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# 1. Race Meet AutoCoach Operating Guide

The following operation guide may be used during: School Races, PE lessons, Club aggregates, PB challenges, training races etc.

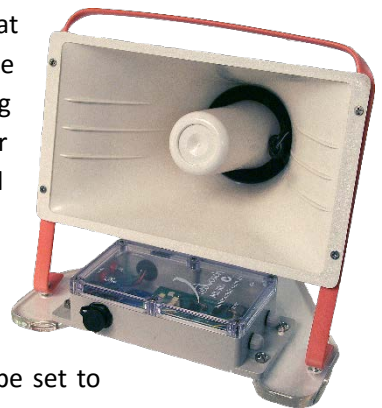
## 2. Required Items

- 2 x ACS300 Speakers (*when using touch pads, 1 speaker per 2 lanes is required*)
- 1 x ACS250 LED Display per 2 lanes (*with optional tripod*)
- 1 x ACS100 SmartWatch per 2 lanes (*when using touch pads, 1 SmartWatch might be sufficient, 1 backup per 2 lanes is however recommended*)
- 1 x ACS80 USB network receiver

## 3. Setting Up

### 3.1: ACS300 Speaker

1. In normal meets place each ACS300 speaker at each corner of the pool, facing at each opposite diagonal corner at far end of pool. When using touch pads, connect the pad wires to the speaker (left lane black terminals, right lane red terminals). Keep the speakers a reasonable distance from the water and in a location that people will not trip over them.
2. Adjust the Channel and Group, to the appropriate settings. Normally Channel should be set to 15.
3. Turn the speakers on, set to Normal mode and the volume set to desired level. If unsure of any settings, simply short press the ACS300 speaker buttons and it will announce the battery levels and settings.



### 3.2: ACS200/ACS250 Display

1. Place the ACS200/ACS250 LED Displays in a location that allows the swimmers, timekeepers, and audience to see. Keep them a reasonable distance from water and in a location people will not trip over the signs.
2. Turn the LED displays on and adjust the Channel and Group to appropriate settings. Normally Channel is set to 15.
3. Change the signs' settings so that one is set to Group 0, one to Group 1 etc., make sure when using touch pads the speaker is set to the same group as the LED panel. Check to see that the LED signs are in the appropriate lanes by starting a race with both of them. The lane numbers for the sign will be shown on the bottom left of the sign.
4. Set all signs to **Race** mode. The status LED should be flashing either green or blue indicating it is on and ready.



### 3.3: ACS100 SmartWatch

1. Turn on SmartWatch and go to **Setup** mode.
2. If not already done, select the correct course length for the pool. It is recommended to set all available SmartWatches to the setting just in case a replacement is needed.
3. Select the appropriate lane numbering system. After saving the setting, it can be tested with the corresponding LED sign to ensure the setting is correct. This setting is important as it will also identify which times belong to which lanes. The Master Stopwatch ( race mode ) is the one in which the settings are used from. Group watches, if used, will display lane numbers derived from the Master Watch setup.



4. Ensure the Channel number is set to the appropriate settings ( Normally set to 15 ).
5. The race starter will operate his/her SmartWatch in **Starter Race** mode and normally select “**Splits**” mode (to ensure no times are accidentally missed). The StopWatch of the starter needs to be setup in the Setup Menu to one of the five Starting methods:

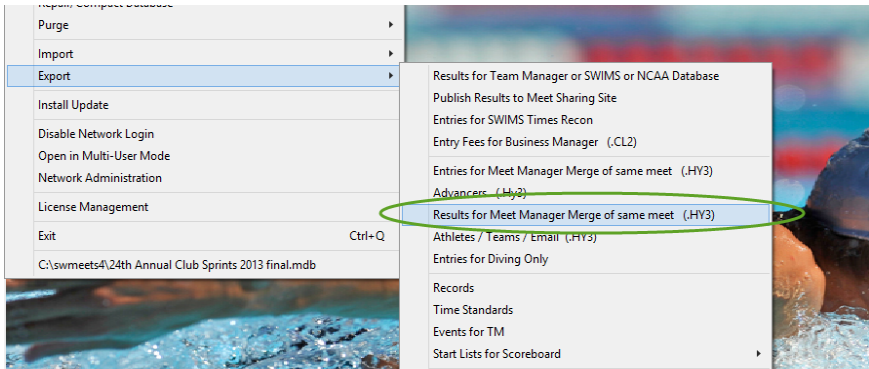
<b>Mode</b>	<b>Description</b>
Normal	Functions as described in the ACS100 manual. Used if no separate starter watch available. Not recommended.
Ovr Top	The same as Normal, but without an exit whistle. Not recommended.
Str Nrm	Race Starter, use, if no referee has whistle.
Str Top	Same as Str Nrm, but without an exit whistle.
Str Man	For starting purposes where whistles are generated by another official. “Take your marks” can be announced verbally or with use of the PTT (right side) button. Recommended for official Qualifying meets.

6. The timing SmartWatches should be set to **Group** mode. If the starter is not taking any times, the timing SmartWatches should be set to group 0 (lane 1 & 2), group 1 (lane 3 & 4) etc. If the starter is timing (the watch should be in Normal or Ovr Top mode) his/her watch is considered to be group 0.
7. After setting up all equipment, ensure that the speakers and LED signs respond to the corresponding watches. If the equipment does not respond, check to make sure that the Channel numbers are the same, and Group numbers appropriate.

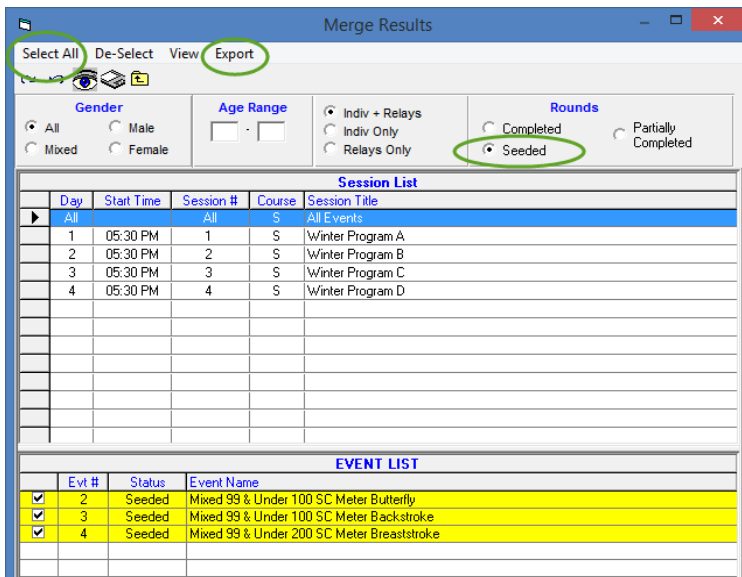
# 4. Preparing Meet Operation

## 4.1 Export from Meet Manager

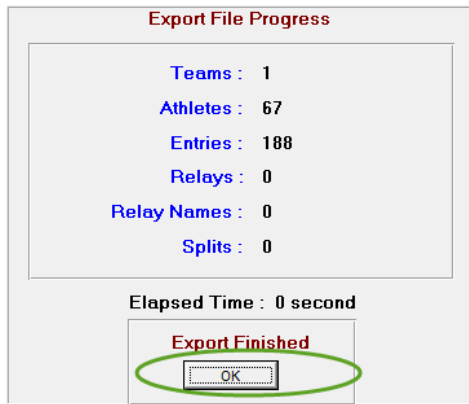
To get result names and event information, we need extract this from Meet Manager. To export the HY3 file you need to setup your meet in meet manager in the usual way, and then export the seeded "results" file ready for AutoCoach manager to read.



Then select what seeded events you want to export for your race.



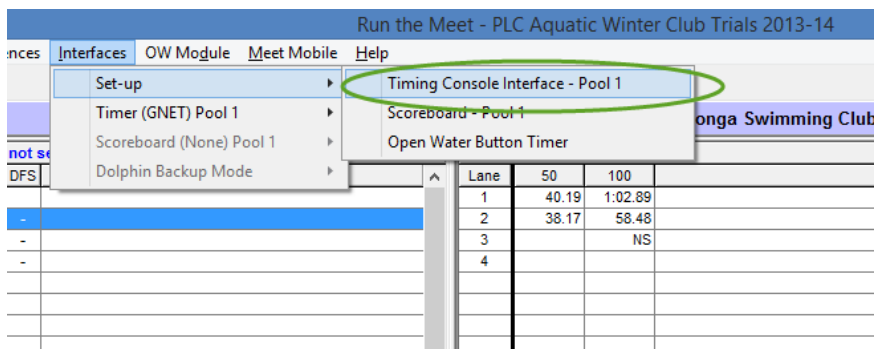
Please note that only seeded results can be exported, and select what sessions / events you require, then click “export”.



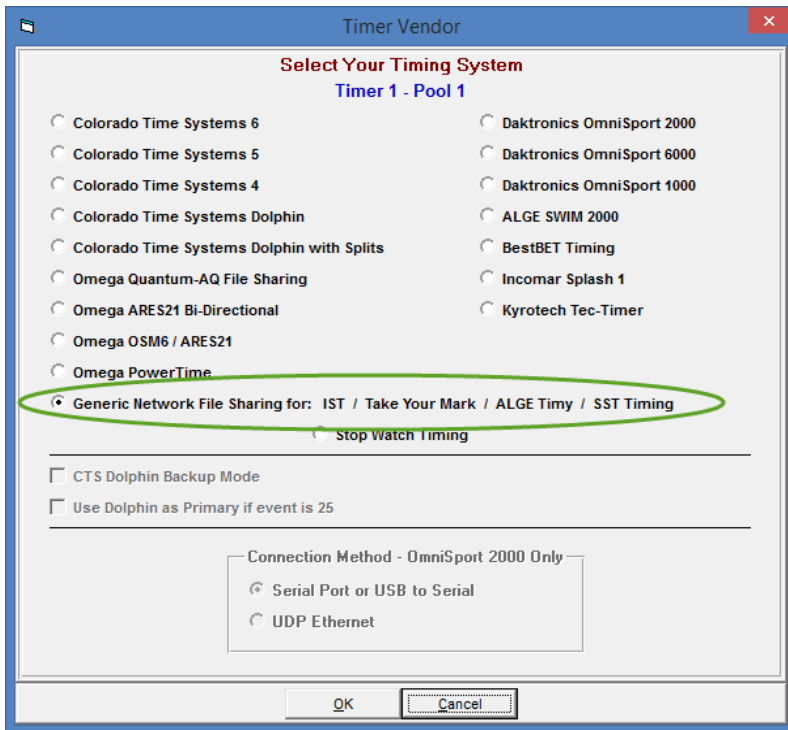
#### 4.2 Meet Manager Timing Interface Setup:

Note: You need to have purchased the “**Generic Timing Console Interface**” option for your meet manager program in order to import results from Automated Timing Equipment.

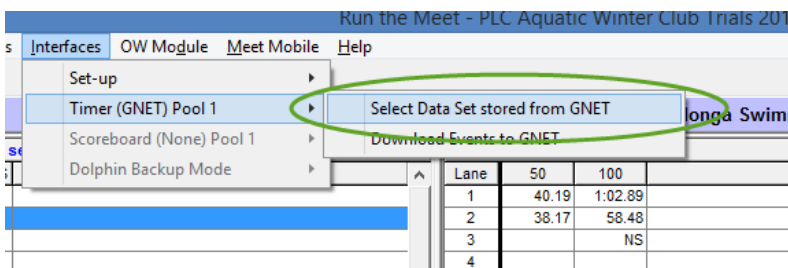
Firstly Setup the interface type as shown here:



Then Select "Generic Network File Sharing" as shown here:

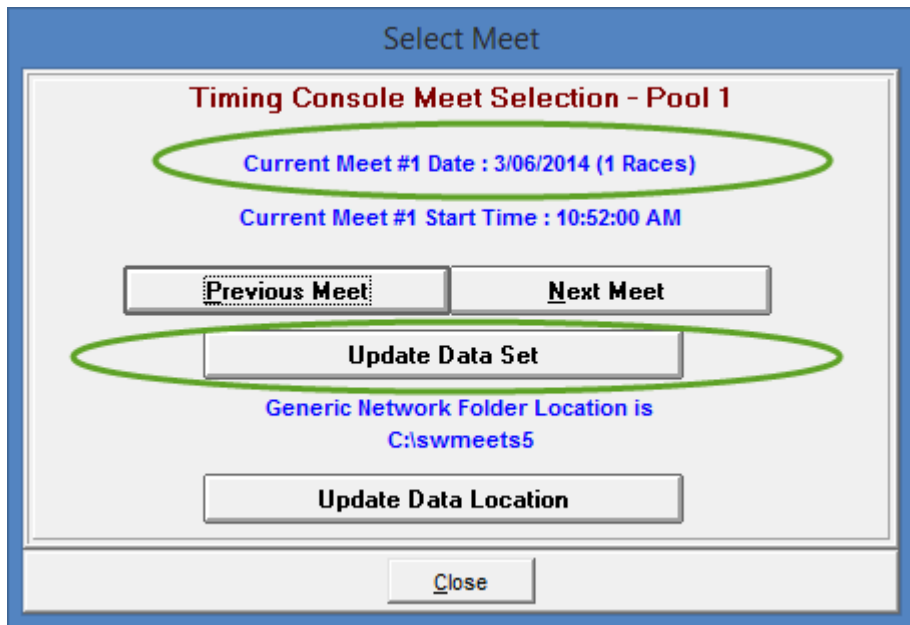


### 4.3 Setup Race / Dataset number

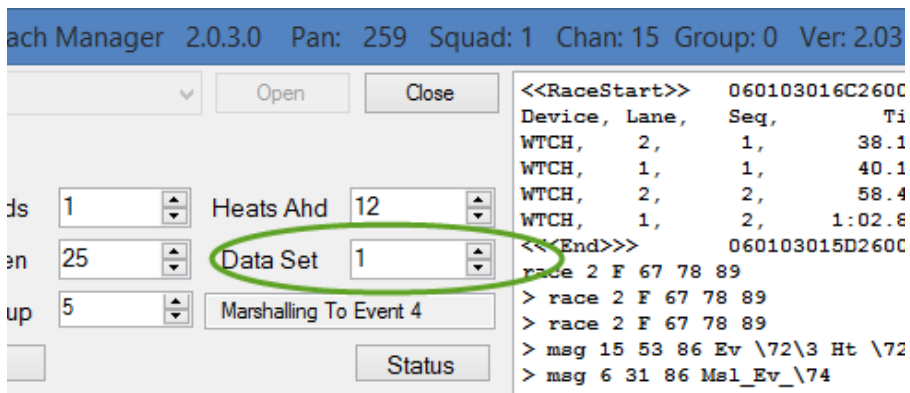




It is important to select the correct Data Set otherwise no results will be imported!



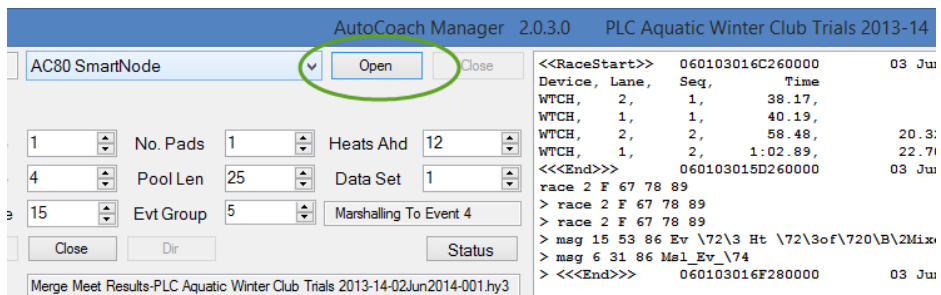
In most cases this will be Data Set #1. This needs to Match the “Data Set” number on AutoCoach Manager as shown here:



If a race is re-run or a race meet repeated, you could select another data set, otherwise keep it at 1.

## 4.4 Receiving the results and importing them into Meet manager

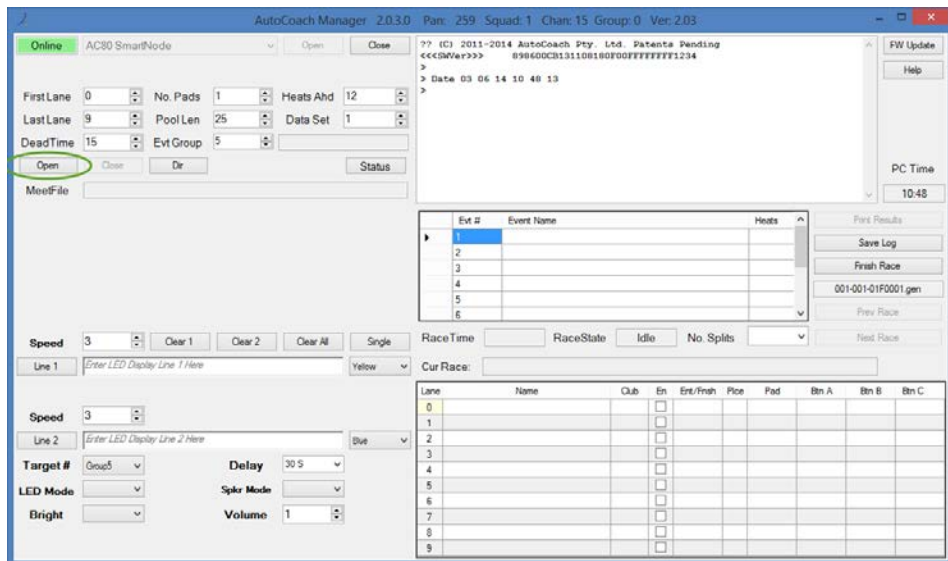
Connect the ACS80 USB network receiver to a computer (PC or MAC). For Windows PCS use our Autocoach Manager program. If using a MAC, you will need to run Meet manager and AutoCoach manager under software such as parallels Desktop or use BootCamp.



Ensure your computer is located within 20M of the timing equipment for best reliability, and the AC80 can be used on a USB extension lead if its location is obstructed for wireless reception. “Open” the AC-80, the AutoCoach message and command prompt can be seen on the AutoCoach Manager program. We have found even glass windows may reduce wireless signals, so its recommended to operate with a clear line of sight between timing devices and the AC80.

### 4.5 Importing the .HY3 file into AutoCoach Manager

Click on “Open” and import the corresponding exported .HY3 file.



You should see a matching list of swimmers to that in the Meet Manager “Run” screen, once the same event and heat has been selected. Please also check the first lane number is also correct ( FINA 10 lane pools will start at lane #0 )

### 4.6 Check settings are all correct in the imported MM file

Then ensure these settings are correct in AutoCoach Manager:

The screenshot shows the AutoCoach Manager 2.0.3.0 interface. At the top, it displays 'AutoCoach Manager 2.0.3.0 Pan: 259 Squad: 1 Chan: 15 Group: 0 Ver: 2.03 PLC Aquatic Winter Club Trials 2013-14'. The main window is divided into several sections:

- Top Left:** 'Online' status and 'AC80 SmartNode' dropdown with 'Open' and 'Close' buttons.
- Left Panel:** Configuration for 'First Lane' (1), 'Last Lane' (4), 'DeadTime' (15), and 'Evt Group' (5). A green circle highlights the 'No. Pads' (1) and 'Pool Len' (25) settings.
- Right Panel:** A log window showing race data. A green circle highlights a table of events:

Ev. #	Event Name	Heats
2	Mixed 998U 100 Fly Final	9
3	Mixed 998U 100 Back Final	9
4	Mixed 998U 200 Breast Final	9

- Bottom Left:** 'Speed' (3) and 'Target #' (Group5) settings.
- Bottom Right:** 'Cur Race:' dropdown set to 'Event 2 Mixed 998U 100 Fly Final Heat 2 of 20'. Below it is a table of lane results:

Lane	Name	Club	En	Ent/Frnsh	Pfctc	Pad	Bin A	Bin B
1	Oh,Chery 13	PLC	✓	NT		1:02.89		
2	Mordue, Tessa 11	PLC	✓	NT		58.48		
3	Konstantinidis, Helena 18	PLC	✓	NT				

If pool length, number of pads is incorrect, you need to reconfigure Meet Manager setup and re-export the .HY3 file again, as timing and recording interfaces don't match!

## 5.0 Setup AutoCoach Stopwatches and race starting setup

### 5.1 Starting Stopwatch setup

It is recommended to have a dedicated “starting” Stopwatch that does not perform race timing. This is mandatory for any qualifying meets! On the starting Stopwatch, go to “Setup->Starts and select either “Str Top” or “Str Nrm” or “Str Man” depending on weather “over the top” starts are employed, or a referee with a whistle is available. “Over the top” mode does not automatically make the exit whistle sound when the race results are “closed”. The mode is then selected to “Race” mode, and either “Splits” or “Single” is selected on the right dial. We recommend splits mode be always used, even in single lap races, in case timekeepers inadvertently press a button. Either Stopwatches or touchpads can be used, and up to 3 buttons per lane can be employed as backup timing. If Stopwatches are used and AutoCoach Manager is set to 1 pad per lane, then the stopwatches can be operated each time a touchpad would normally be triggered, allowing recording of split times as well. Not button times are only used for the race finishes!

**If a referee is present, the Starter will generate the entry or exit whistles, and you need setup the Starters Stopwatch to “Str Man”. This allows manual selection of “take your marks” or the “Start Beep”. The Stopwatch has a failsafe that prevents a start beep if no “Take your Marks” signal has been sent.**

### 5.2 Lane Setup for your pool

Pool lanes can either be increasing or decreasing as see from the right most lane.

To configure this, on the Starters Stopwatch go to Setup->Lanes and select 1 ... 10 or 10 .. 1 etc. Only the Race Starters Stopwatch need have all the correct settings, the timing Stopwatches do not need to be setup as they get the setting from the master device!

### 5.3 Timing Devices setup

The AutoCoach system caters for three types of timing devices ( Wireless Stopwatches, Touchpads connected to SmartSpeakers and Wireless SmartButtons.

Stopwatches can be used in lieu of touchpads for non-qualifying meets, and races can be configured as if it has one touchpad at the starting end of the pool if split times are desired ( useful in relay races too ).

### 5.4 Stopwatch setup

All timing stopwatches are run in “Group” mode, whereby a Stopwatch can time two lanes. The first two lanes are timed by “Group 0” Watch, the next two lanes are timed by the “Group 1” watch and so on. Timekeepers need be aware what button is for what lane by practising before the first race is run. After at least one operation of the race starter, the appropriate lane numbers are displayed on the Group Stopwatches. Please note that in single lap races where the timekeepers move to the opposite pool end, the lane numbers need be reversed!. Usually timekeepers are instructed to hold the Stopwatches upside down to avoid confusion.

### 5.5 Touchpad setup

For each pair of lanes, an ACS300T SmartSpeaker is required. As per the Stopwatches, each speaker unit needs to be on its required “Group”, with “Group #0” being the first two lanes and Group #1, #2.. up to Group #4 for 10 lane pools.

When touchpads are hit, a “boop” sound can be heard, indicating touchpad has detected a press.

### 5.6 SmartButton setup

The wireless SmartButtons are pre-programmed to lane numbers and letters, such as Lane 4 B. To turn on the SmartButton, a long press is required if the LED on the button is not flashing. Lane assignments can be changed by the user when plugged into AutoCoach Manager, see AC81 user guide for further details.

## 6. Racing procedure

### 6.1 Race Starter operation

The most important thing the race starter need do is ***to ensure they are starting the correct race, and all competitors have completed the current race before performing a long press on the Left Stopwatch button which “closes” the race.*** After “closing” the race, no further times will be recorded. This is especially important if a SWD or very young swimmer is competing on that race!

### 6.2 Stopwatch Operation

**Race starters should have practiced using the AutoCoach system before using the system in a live race meet!** The Starter has control over the whole timing system, and is the key to a trouble free event. AutoCoach recommends the use of an ACS250 LED display set to display the current event/heat in order to ensure the timing results are attributed to the correct race. Using a clipboard with a copy of the program and checking each heat off will help keep track of things.

To store all race results for later use, long press the left button of the SmartWatch after each heat to save to a Log File. Optionally after a pre-set delay, the next heat/event will automatically be displayed. During this delay( Auto Heat delay ) period race placing / teams and or times can be displayed on the LED displays. These settings are on AutoCoach Manager “Results” combobox.

#### Notes:

- All technical matters should be well understood before the day of the race in order to avoid any delays
- After race warm-up, retest the system to ensure that none of the devices or settings have been tampered with.

If you are the operator of the “Master” watch and therefore the race starter, make sure you know these things before each event:

- 1) Backstroke or dive entry?
- 2) How many laps?
- 3) Are swimmers in their correct lanes?
- 4) Are there supposed to be any empty lanes?

- 5) Are the swimmers ready?
- 6) Are the other timekeepers ready?
- 7) Have the swimmers from the previous event left the pool or are in the correct position if starting “over the top?”
- 8) Is the displayed race the correct one as per the official program?

**Procedure:**

- 1) In pools that allow it, use the short press left button for the starters whistle; otherwise tell the swimmers to “get ready.”
- 2) Short press on the **right button** for “Take your marks”
- 3) Once all swimmers are ready and still, short press the **right button** to sound the start beep and start the race
- 4) If you have started a race and need to terminate due to a “false start” event, perform a double press on the **right watch button**. This will make the false start sound. You can then perform the exit water sound (long press **left button**), and then start the event anew.
- 5) Do not get distracted by parents etc. at this point and just focus on your two lanes. Make sure the next events’ swimmers are not too close to the finish area and are well behaved.
- 6) After ALL swimmers in an event have finished, perform a long press on the **left button** to sound the “exit pool” whistle sound. (Do this even if it is “over the top” finishing, in which case the double whistle means get in the safe lane position.
- 7) Look over to the person on the laptop in case they have some query about any times etc. If OK (thumbs up ) proceed to the next event
- 8) After all racing is complete, backup the results files to a memory stick etc. and pack up. Make sure you don’t forget any equipment!

NOTE: All Stopwatches record the last 200 RACES internally, with time and date stamping and all lap counts and split times. This is a handy backup method in case something goes wrong with the equipment or computer, in addition you can manually write down each results by using results recorded by the SmartWatches (Splits mode).