

- Higher efficiency
- Lower labor requirement
- Easily deploy & withdraw
- Wireless connection
- Battery power
- Flexible combination
- Up to 10 lanes

Autocoach Manager program Run Meet form

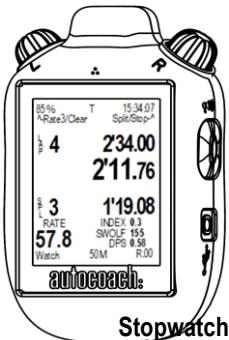


On Marks & Marshalling		Start	Timing	Place	Group				
ON Marks!	12	0.1	12	35	1				
	34	0.1	37.36	36.05	2				
Ev 1 Ht 1 of 2	56	0.1	35	36.05	3				
Girls 10&U 25 BK					4				
Msl Ev 4	78	0.1	78	35					
Start Watch X1									
15% T 09:02:13	06% T 09:02:13	29% T 09:02:13	10% T 09:02:13	50% T 09:02:13					
~Whistle Marks~ 1 N.Shaw HTR		1 N.Shaw HTR	1 N.Shaw HTR	1 N.Shaw HTR					
M1 3434	N3 3736	N5 3462	N7 3391	N8 3509					
M2 3400	N4 3605	N6 3623	N8						
Race Completed!									
Race Str Nor S Splits	L2 Group 0	L1	L4 Group 1	L3	L6 Group 2	L5	L8 Group 3	L7	

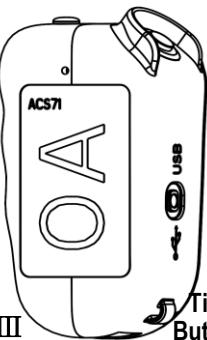
Equipment List	
Equipment	Setting
1 *Tranciever X1, Computer & Printer	
0 *Speaker X4	Normal, Group 0~3
1 *Starter X1	
2 *Start Watch X1	Race Str ***
3 *Timing Watch X4	Group 0~3
4 *Timing Button X24	Lane 1~8, Button A/B/C
2 Touchpad X8 (connect speaker)	
3 *Timing Display X4	Normal, Group 0~3
4 *Event Display X1	Normal, Group 5~7
5 *Marshalling Display X1	Normal, Group 5~7
6 Multi-Funclon Dispav (MFD) & LED Player	
7 Big TV	

*Need same Channel & Net ID
1: Necessary, 2:Single choice, 3&4: Multi choice

autocoach:

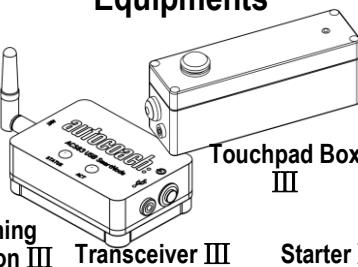


Stopwatch III

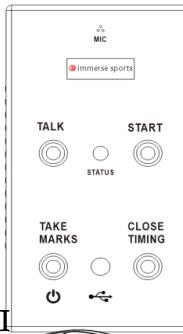


Timing Button III

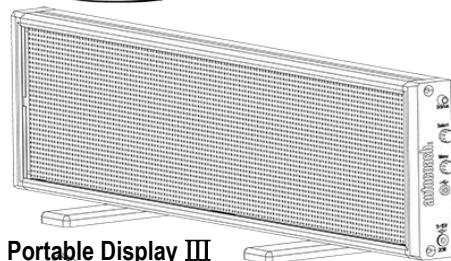
Autocoach System Equipments



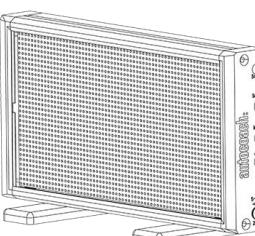
Transceiver III



Starter III



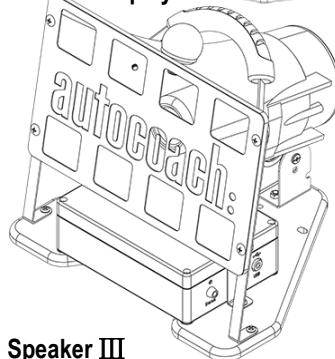
Portable Display III



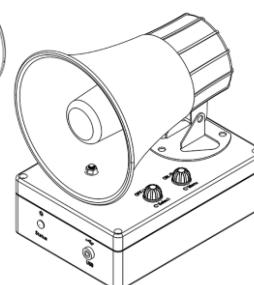
Mini Portable Display III



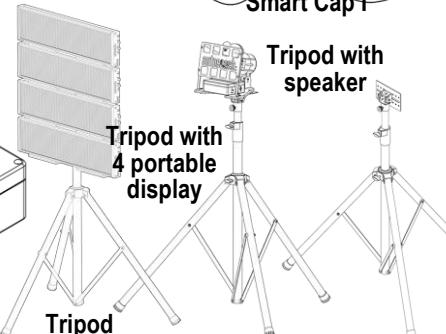
Smart Cap I



Speaker III



Mini Speaker III



Tripod with 4 portable display

Tripod

Devices energy saving behavior

Stopwatch/Speaker/Portable Display/Timing Button/Starter power by chargeable battery. Use 3 works status (idle/hibernation/OFF) to extend battery life.

Idle status is device is ON but not doing timing. Device (not include stopwatch) status led flash every 5s when in hibernation status.

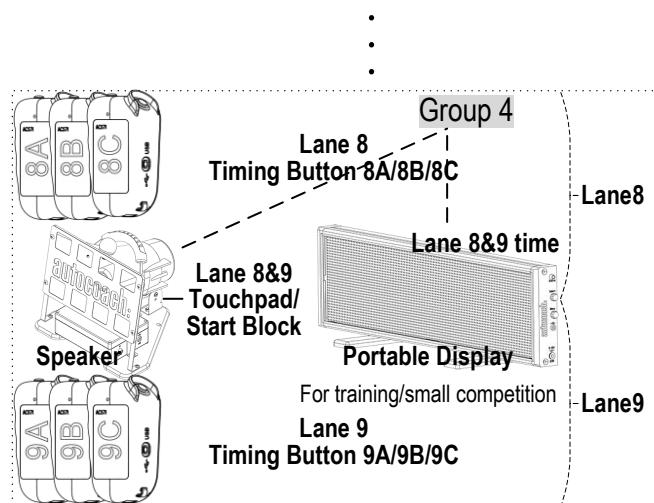
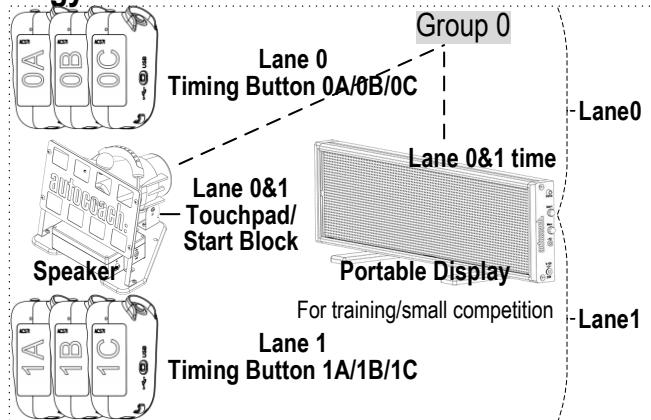
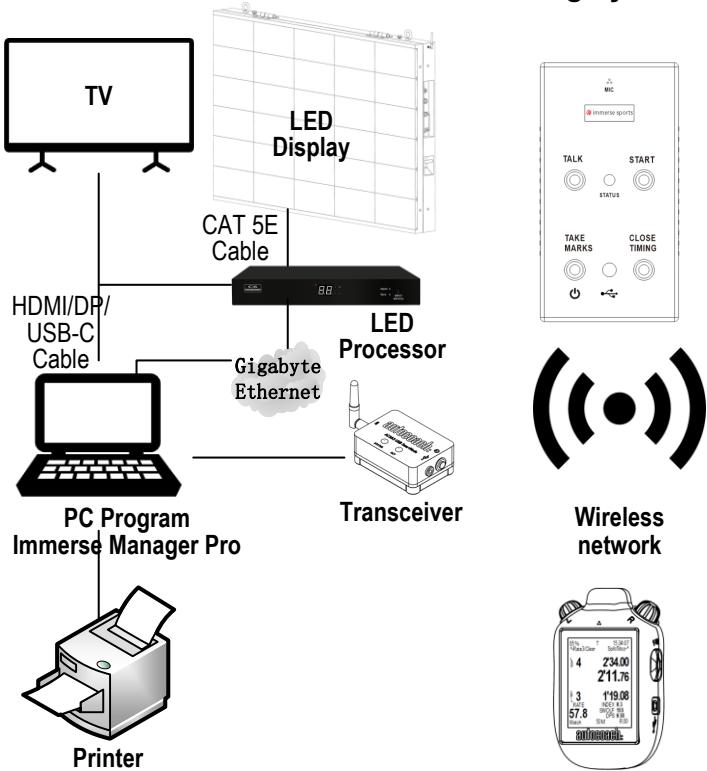
When transceiver is active, doesn't allow connected device enter hibernation and OFF status.

Device will automatically enter hibernation status if stay in idle status more than 45 minutes (speaker/portable display is 3 hours) without any local button/Knob operation or no data received from other device.

In 8 hours, if hibernation device has local button/knob operation or receive data from connected device, it will wake up and enter idle status, the status led will flash every one second. Long press stopwatch talk key can wake up hibernation device with same group setting.

After 8 hours, hibernation device will automatically turn off itself. And all led will be off too.

Autocoach timing system topology



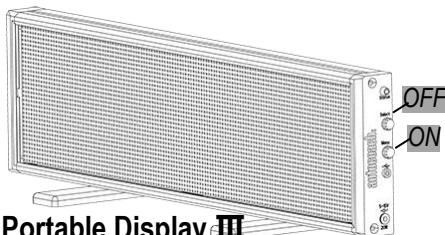
AutoCoach devices wireless connection

All autocoach devices can work together if they have same **Net ID**, **Channel** and matched **Firmware version**. End user can update firmware by Immerse Manager Pro program and set up **Channel** by the keys of device. Call autocoach for **Net ID** change service.



Hold R/L key + **Unlock** key until hear “On” to turn on stopwatch, it will display the Net ID (**Net**), Channel (**CH**) and firmware version (**V**).

Hold **Unlock** key and rotate **L** key to **Setup** mode. Release **Unlock** key then rotate **L** key to **Channel** item. Rotate **R** key to select desired channel. Long press **R** key to sound “stored” to save the setting.



Portable Display III

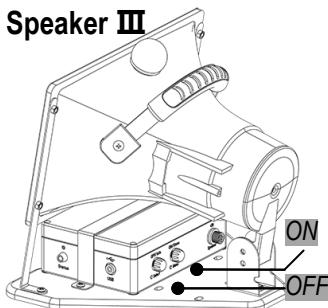
Hold both **ON** & **OFF** key about 15 seconds until status led fast flash to reboot display. It will display firmware version (**V**).

When idle, rotate **On** key to **Chan** item, rotate **Off** key to select desired channel, long press **On** key until display “Saved” to save the setting.

When idle, short press **ON** key to show **Net ID** (**Net**), short press **OFF** key to show **Channel & Group**.

AUTOCOACH: V1.45	Bat 65% Net 30	Gr 0 Chan 15
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Speaker III

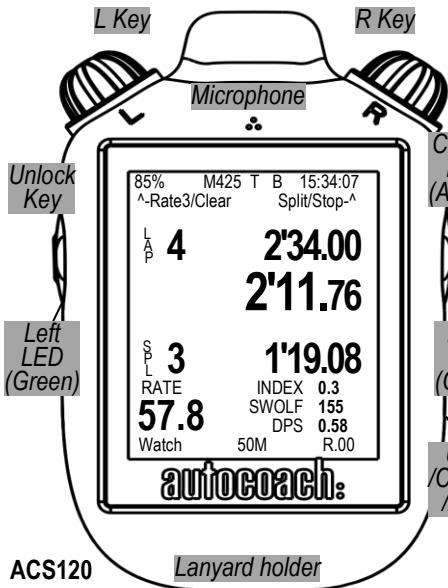


Hold Both **On** & **Off** key about 15 seconds until status led fast flash to reboot speaker, it will announce firmware version “**Version...**” and Net ID “**Network...**”

Rotate **On** key to hear “**Channel...**”, rotate **Off** key to select desired channel value, long press **On** key to hear “**Stored**” to save value.

Transceiver/Timing button/Starter/Touchpad box/Smart cap

Need use USB cable to connect with computer. Then use Immerse Manager Pro program to setup **Net ID** and **Channel**.



Stopwatch III User Guide V5.06

For V1.48+ Firmware

General Operations

Turn On	Hold Unlock + R/L key until show logo
Turn Off	Hold Unlock + R/L key until screen off when it is idle. Auto turn off if idle 45 minutes. "B" on top line means beacon active and not allow turn off.
Volume	Rotate R key in Race/Group/Watch/Speed/Interval/BeepTest/Splits mode.
Talk/PA	Hold Talk key and talk to microphone, Rotate R key to change target device.
Change Mode	Hold Unlock key + Rotate L key
Hail Whistle	Press both Unlock & Talk key
Clear Screen	Long press L key when it is idle
Recall Screen	Press Unlock key when it is idle
Reset Device	Hold both R&L key about 15s until Left LED start fast flashing

Talk/PA

Hold Talk key & rotate R key to select target device	- ALL -	All devices can receive
	Speakers	Speakers can receive
	Watches	Watches can receive
	Athletes	Athletes can receive
	Lane #1	Odd athletes can receive
	Lane #2	Even athletes can receive
	Athlete 1~16	Matched athletes can receive

Packing List	Optional Items
Stopwatch	Storage bag
USB Cable	AUX cable
5V/1A	AC101 Single Power Pack
	ear headset

85% M485 T 15:34:07
^Rate3/Clear Start^

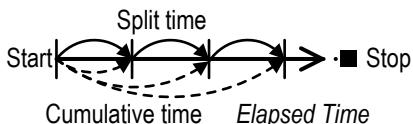
Hold Talk key to talk

Target Device
PTT 25M ALL -

▲ Devices can work together (same Net & Channel).

Contact AutoCoach to set Net.

▲ Reset device when battery not flat if abnormal work.



Cumulative time: An elapsed time cover a distance from the start to a given point.
Split time: An elapsed time cover a given section of the whole distance.
Elapsed Time: An elapsed time cover total finished distance.

autocoach:

Tel : +61 3 9029 0973

Mail: enquires@autocoach.com.au

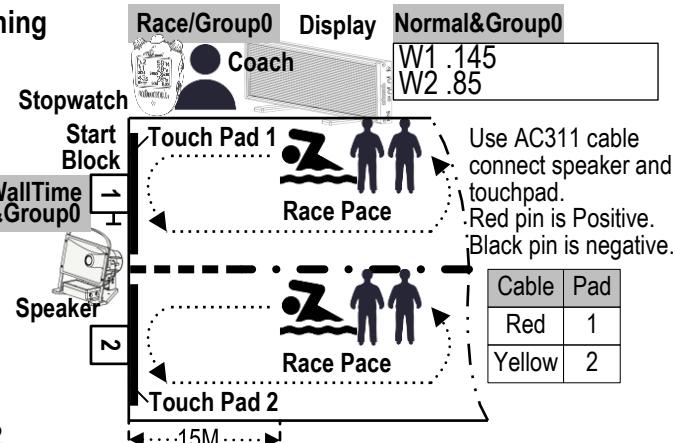
Web: www.autocoach.com.au

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ACS120 Stopwatch III modes overview			• Yes	○ No	Suffix		
			M	E	L	S	W
Normal	Watch	Split time/Cumulative time/Stroke rate/DS/SW/SI/Reflex compensation /LAP/ Dual Watch etc.	●	●	●	●	●
	Speed	Split velocity/Cumulative time/Stroke rate/DS/SW/SI/Reflex compensation/LAP mode.	●	●	●	○	●
Race	Race	International standard start signals/split time/Cumulative time. Support pool swimming, running, marathon, open water swimming, etc.	●	*	△	●	○
	Score	Work with portable display and speaker, timing & score for ball games (football /waterpolo /basketball etc). Also can use for diving.	●	○	●	○	○
Group (Slave watch)		Work with master stopwatch (Race/Interval/Pace/PaceTst mode), timing for up to 10 lanes.	●	●	○	●	○
	Interval	Auto start & timing for team sprint training in two lanes. Interval [10] (Rapid spread) mode can do strokerate too. Normally for novice training.	●	●	○	●	○
Training	Pace	Split time/Cumulative time/Stroke rate/DS/SW/SI/Reflex compensation /LAP/ Dual Watch etc.	●	●	○	○	○
	PaceTst	Decreasing cycle time pace mode. Test end if swimmer can't arrive start line before next start signal sounded. Score is the last split time.	●	●	○	○	○
Testing	BeepTst	20m shutter run, 10/20m shutter swimming test. Testing end If can't catch start signal. L/R key can test multiple people.	●	○	○	○	○
	Graph	Show Split times in bar graph and Split velocities in line graph for Watch / Speed / Race modes, easily to know min & max split and variety. Only enable when record more than 2 laps.	●	●	○	●	●
Data Analysis	Splits	Review splits lap by lap. split time, cumulative time, split velocity, stroke rate, DS,SW,SI etc.	●	●	●	●	●
	Memory	Review last 500 records of Watch / Speed / Race modes.	●	●	●	●	●
Others	Setup	Emit external audio to other AutoCoach devices.	●	●	●	●	●
	AUX	Auto start & timing for team sprint training. Easy for novice swimmer.	●	●	●	○	●
Remarks		* Not allow Multi timing type and athletic race start. △ not allow Str Nrm/Str Top/Str Man race start type.					

Swimming Turning Training

83% M253 T 17:14:35
^Whistle Marks-^
EXIT POOL EXIT POOL
W0 029
W0 023
Race Normal S Split



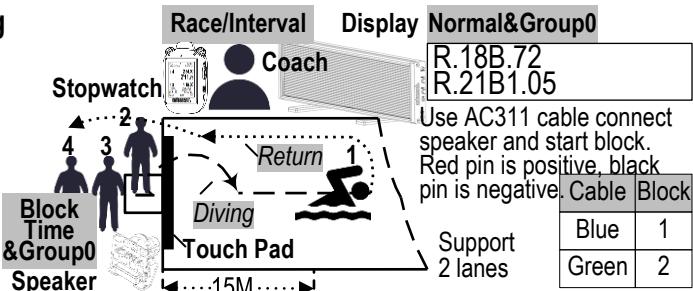
Wall Time (W): The duration of freestyle or back stroke swimmer's feet touch the pad. It will be ignored if more than 2 seconds.

Swimmers queue in water 15 meters away to the start block. Swim towards the block at race pace start to do turning training.

When the feet of swimmer left off touch pad, display and stopwatch will show the wall time immediately, and the speaker will synchronously sound the time too.

Swimming Start Training

83%	M211 T	17:14:35
^Split/Finish	Split/Finish	^
RACE IS IN PROGRESS		
1.5	1.5	R.18B.72
L P 1		R.21B.05
L P 1		R.21B.05
Race	Normal	S Split



Reaction Time(R): The time between start beep and the swimmer's feet start to push the block back.

Block Time(B): The time between start beep and the swimmer's feet stop pushing the block back (swimmer feet leave block).

Stopwatch set to race or interval mode, press the start button, swimmer start diving when hear start beep from stopwatch or speaker.

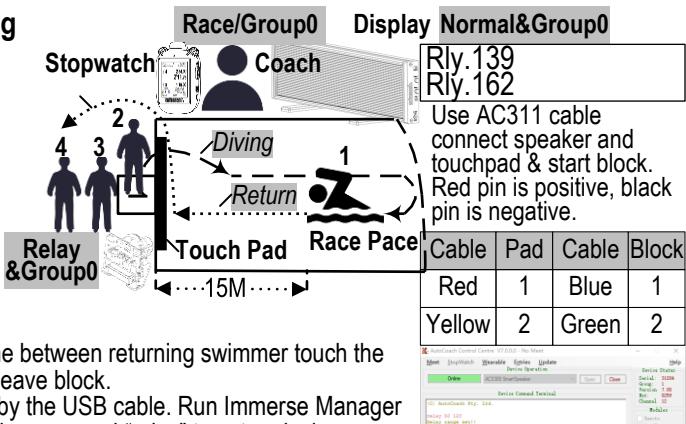
When the diving swimmer's feet leave block, display and stopwatch will display the reaction time and block time, speaker sound the block time synchronously.

If $0.15 < R < 0.21$, speaker will sound a high beep to indicator good start. If $R < 0.15$, it will sound a false start alarm. If $R > 1$, it will be ignored.

Stopwatch set to interval mode can automatically and continuously sound start beep for multi swimmers efficient training.

Swimming Relay Training

81%	M211 T	16:08:29
^Whistle	Marks	^
EXIT POOL	EXIT POOL	
	Rly .139	
	Rly .162	
Race	Normal	S Split



Changeover Time(Rly): The time between returning swimmer touch the pad and leaving swimmer's feet leave block.

Connect speaker with computer by the USB cable. Run Immense Manager Pro program on computer. Type in command "relay" to setup desire changeover time. For example, command "relay 80 190" set desire changeover time to 0.08~0.19s. Value range is 0~0.255s.

The 1st swimmer stay in water 15 meters away to start block. The 2nd to 4th swimmers queue behind the block. When the speaker and stopwatch sound "Ready", the 2nd swimmer aboard the block to get ready, and the 1st swimmer swims towards the block at race pace. The changeover training start.

When the 1st swimmer touch the pad and the 2nd swimmers left off block, speaker and stopwatch will sound "Ready" again for next changeover to start.

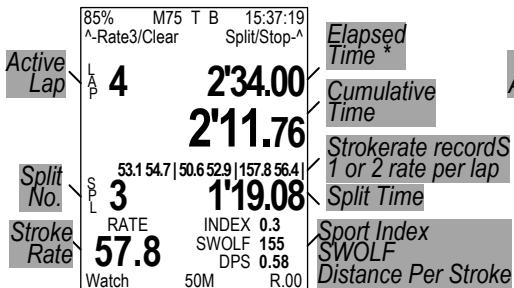
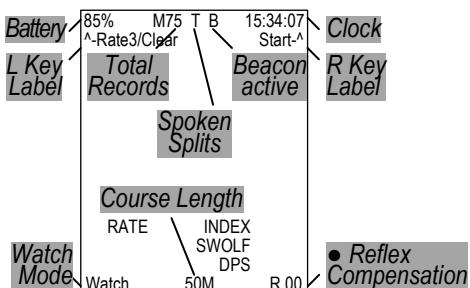
The return swimmer will exit pool safely when the diving swimmer in water.

The diving swimmer will return when they reach 15 meter line, then become return swimmer for next changeover, and so on.

When the feet of diving swimmer leave block, display and stopwatch will show changeover time immediately, and the speaker will synchronously sound changeover time too. Speaker will sound false start alarm (blare) to indicator disqualification when got negative changeover time. And higher beep means the changeover time is in the desire range.

Watch Mode

Single stopwatch
Operation is same as Speed mode



INDEX : Product of DS and velocity. Higher is better. Bigger than 10 is un-available.

SWOLF: Stroke cycle count plug split time. Lower is better.

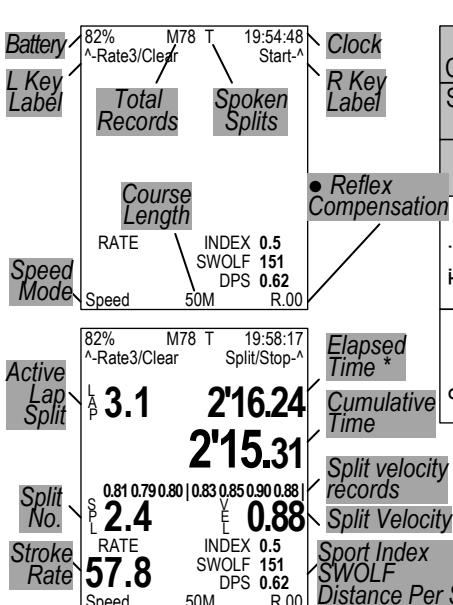
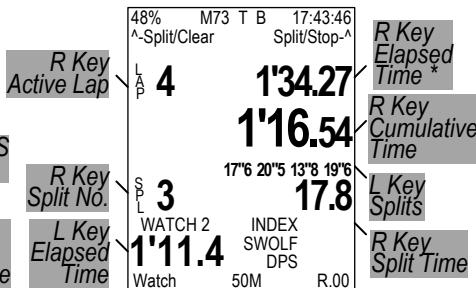
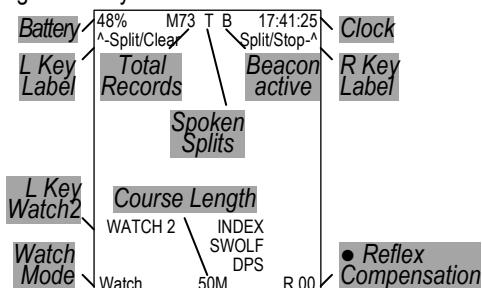
DPS: Distance in meters covered a swim cycle

* : When reflex compensation set to LAP, here is split time.

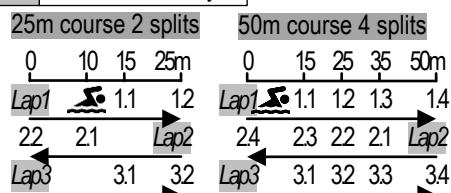
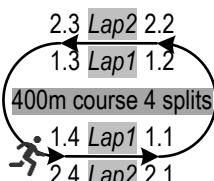
● : Compensation time when following the start signal of another start system. Between 0.16-0.30s.

Watch Mode

Dual stopwatches
When "Rate Count" in setup mode is "Dual Watch", L Key can timing like R key instead of strokerate function.



Set Reflex Compensation	Hold unlock key & rotate R key. * It is split time if set to LAP.
Stroke Rate	Short Press L key two times to cover strokes equal "Rate Count" In Setup mode.
Talk Time	Rotate R key clockwise to show "T" on top line
Timing	Start: Short press R key Timing: Short press R key Stop: Long press R key
Screen	Review: Rotate L key Clear: Long press L key Recall: Press unlock key



Battery	78%	M75	T B	9:27:06
L Key Label	^Whistle	EXIT POOL	EXIT POOL	Marks ^
	Total Records	PC	Connected	

Clock
R Key Label

SpokenSplits
Race Type S: Swim A: Aths
Start Type Race Normal S Split

Pre Set
Timing Type

Note: Difference Race/Start type use difference start signals

Race Mode	Normal	S Split
-----------	--------	---------

Others Operation
L&R Key Elapsed Time

Pre Set	Race Type	Set "Race Type" in setup mode
Start Type	Start Type	Set "Starts" in setup mode
Timing Type	Timing Type	Hold unlock key & rotate R key
Others Operation	Short press L/R key	Whistle/Marks/Race/Split
	Long press L/R key	Exit pool/Abort/Finish
	Double click R key	False start after start timing
	Rotate L key	Scroll history splits
	Rotate R key	Change volume

R Key Laps	Normal	S Split
------------	--------	---------

R Key Splits

R Key Laps	Normal	S Split
------------	--------	---------

L Key Splits

R Key Laps	Normal	S Split
------------	--------	---------

* L Key Cumulative

Timing Type	Description	
Split	L/R timing key for one person with split times	
Singl*	L/R timing key for one person with finish time	
Multi●	L/R timing key for multi persons with finish time	
Note	* Disable when transceiver is active. ● For triathlon and open water event.	

Start Method	41%	T	15:26:47	Save ^
	^Reset Pace Setting	Option		
Starts	Ovr Top			
Lane Order	Normal			
Course	Str Top			
Training	Str Nrm			
Race Type	Str Man			
Match Period				
Pacetest Step				
Race mode starting method.				
Str modes need timekeepers.				
Man modes are for Officials.				

Setup Mode	Setup	Net ID	30
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Older Setting
Select New Value

Start Method	Start Watch Timing	On Block Signal	Exit Pool Signal	Exit Pool Method
Normal	Enable	Long Whistle	Double Whistle	Before next start
StrNor	Disable	Long Whistle	Double Whistle	Before next start
OvrTop	Enable	Long Whistle	Double Beeps	After next start
StrTop	Disable	Long Whistle	Double Beeps	After next start
StrMan	Disable	None	Double Beeps	After next start

Race Type	Timing Type	Start Signals				
Swim	Singl/Split	Long Whistle (Ready)	Take your marks (On Marks)	Stand down (Abort)	Beep (Start)	Alarm beep (False Start)
Swim	Multi	Long Whistle (Ready)	Take your marks (On Marks)	Stand down (Abort)	Beep (Start)	No signal for cancel race
Aths	Singl/Split	On your marks (On Marks)	Set (Set)	Stand down (Abort)	Shot (Start)	Alarm beep (False Start)
Aths	Multi	Long Whistle (Ready)	Set (Set)	Stand down (Abort)	Shot (Start)	No signal for cancel race
						No signal for exit

Race Type	Timing Type	Start Signals				
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Swim	Multi	Long Whistle (Ready)	Take your marks (On Marks)	Stand down (Abort)	Beep (Start)	No signal for cancel race
Aths	Singl/Split	On your marks (On Marks)	Set (Set)	Stand down (Abort)	Shot (Start)	Alarm beep (False Start)
Aths	Multi	Long Whistle (Ready)	Set (Set)	Stand down (Abort)	Shot (Start)	No signal for cancel race
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Aths	Multi	Long Whistle (Ready)	Set (Set)	Stand down (Abort)	Shot (Start)	No signal for cancel race
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Aths	Multi	Long Whistle (Ready)	Set (Set)	Stand down (Abort)	Shot (Start)	No signal for cancel race
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Aths	Singl/Split	On your marks (On Marks)	Set (Set)	Stand down (Abort)	Shot (Start)	Alarm beep (False Start)
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Aths	Singl/Split	On your marks (On Marks)	Set (Set)	Stand down (Abort)	Shot (Start)	Alarm beep (False Start)
Aths	Multi	Long Whistle (Ready)	Set (Set)	Stand down (Abort)	Shot (Start)	No signal for cancel race
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Race Type	Timing Type	Start Signals				
Swim	Singl/Split	Long Whistle (Ready)	Take your marks (On Marks)	Stand down (Abort)	Beep (Start)	Alarm beep (False Start)
Swim	Multi	Long Whistle (Ready)	Take your marks (On Marks)	Stand down (Abort)	Beep (Start)	No signal for cancel race
Aths	Singl/Split	On your marks (On Marks)	Set (Set)	Stand down (Abort)	Shot (Start)	Alarm beep (False Start)
Aths	Multi	Long Whistle (Ready)	Set (Set)	Stand down (Abort)	Shot (Start)	No signal for cancel race
						No signal for exit

Race Type	Timing Type	Start Signals				
Swim	Singl/Split	Long Whistle (Ready)	Take your marks (On Marks)	Stand down (Abort)	Beep (Start)	Alarm beep (False Start)
Swim	Multi	Long Whistle (Ready)	Take your marks (On Marks)	Stand down (Abort)	Beep (Start)	No signal for cancel race
Aths	Singl/Split	On your marks (On Marks)	Set (Set)	Stand down (Abort)	Shot (Start)	Alarm beep (False Start)
Aths	Multi	Long Whistle (Ready)	Set (Set)	Stand down (Abort)	Shot (Start)	No signal for cancel race
						No signal for exit

Race Type	Timing Type	Start Signals				
Swim	Singl/Split	Long Whistle (Ready)	Take your marks (On Marks)	Stand down (Abort)	Beep (Start)	Alarm beep (False Start)
Swim	Multi	Long Whistle (Ready)	Take your marks (On Marks)	Stand down (Abort)	Beep (Start)	No signal for cancel race
Aths	Singl/Split	On your marks (On Marks)	Set (Set)	Stand down (Abort)	Shot (Start)	Alarm beep (False Start)
Aths	Multi	Long Whistle (Ready)	Set (Set)	Stand down (Abort)	Shot (Start)	No signal for cancel race
						No signal for exit

Race Type	Timing Type	Start Signals				
Swim	Singl/Split	Long Whistle (Ready)	Take your marks (On Marks)	Stand down (Abort)	Beep (Start)	Alarm beep (False Start)
Swim	Multi	Long Whistle (Ready)	Take your marks (On Marks)	Stand down (Abort)	Beep (Start)	No signal for cancel race
Aths	Singl/Split	On your marks (On Marks)	Set (Set)	Stand down (Abort)	Shot (Start)	Alarm beep (False Start)
Aths	Multi	Long Whistle (Ready)	Set (Set)	Stand down (Abort)	Shot (Start)	No signal for cancel race
						No signal for exit

Race Type	Timing Type	Start Signals				
Swim	Singl/Split	Long Whistle (Ready)	Take your marks (On Marks)	Stand down (Abort)	Beep (Start)	Alarm beep (False Start)
Swim	Multi	Long Whistle (Ready)	Take your marks (On Marks)	Stand down (Abort)	Beep (Start)	No signal for cancel race
Aths	Singl/Split	On your marks (On Marks)	Set (Set)	Stand down (Abort)	Shot (Start)	Alarm beep (False Start)
Aths	Multi	Long Whistle (Ready)	Set (Set)	Stand down (Abort)	Shot (Start)	No signal for cancel race
						No signal for exit

Race Type	Timing Type	Start Signals				
Swim	Singl/Split	Long Whistle (Ready)	Take your marks (On Marks)	Stand down (Abort)	Beep (Start)	Alarm beep (False Start)
Swim	Multi	Long Whistle (Ready)	Take your marks (On Marks)	Stand down (Abort)	Beep (Start)	No signal for cancel race
Aths	Singl/Split	On your marks (On Marks)	Set (Set)	Stand down (Abort)	Shot (Start)	Alarm beep (False Start)
Aths	Multi	Long Whistle (Ready)	Set (Set)	Stand down (Abort)	Shot (Start)	No signal for cancel race
						No signal for exit

<

Stopwatch III swimming race start procedures

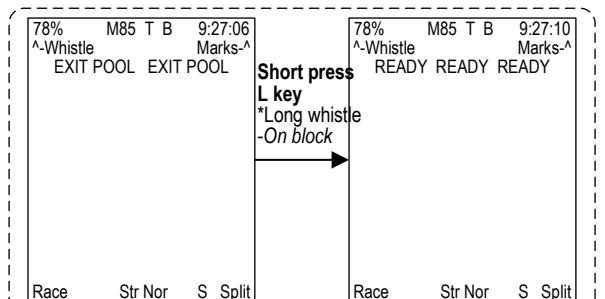
timing by slave watch

Setup start watch (master watch)

1. Hold **Unlock** key & rotate **L** key to **Setup** mode.
2. Rotate **L** key to **Starts**, rotate **R** key to select start method, long press **R** key to store.
3. Rotate **L** key to **Race Type**, rotate **R** key to **Swim**, long press **R** key to store.
4. Hold **Unlock** key & rotate **L** key to **Race** mode.
5. Hold **Unlock** key & rotate **R** key select timing type for slave watch. **Singl** only record finish time for one person. **Split** can do multi split times for one person. **Multi** means L/R key can record finish times for multi persons in open water swim race.

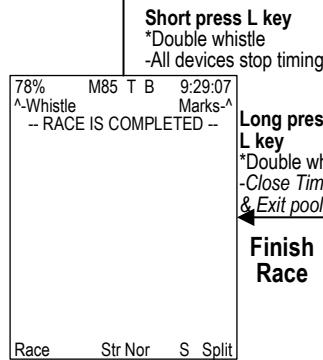
41%	T	15:26:47
^Reset Pace	Save ^	Option
Setting		
Starts	Ovr Top	
Lane Order	Normal	
Course	Str Top	
Training	Str Nrm	
Race Type	Str Man	
Match Period		
Pacetest Step		
Race mode starting method.		
Str modes need timekeepers.		
Man modes are for Officials.		
Setup	Net ID	30

41%	T	15:26:47
^Reset Pace	Save ^	Option
Setting		
Starts	Swim	
Lane Order	Athls	
Course		
Training		
Race Type		
Match Period		
Pacetest Step		
Select what sports mode the stopwatch will be configured for use with.		
Setup	Net ID	30

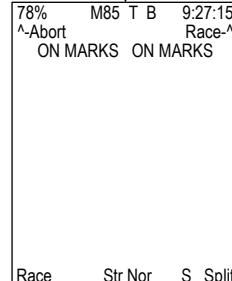


Normal procedure

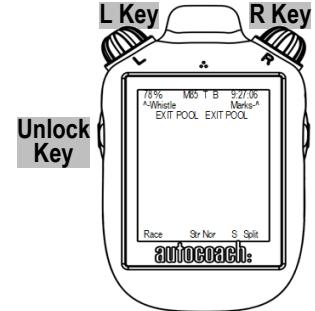
Next heat



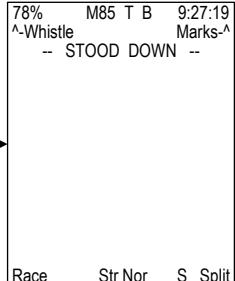
Short press R key
*Take your marks
-On Marks



Short press R key
*Start beep
-Start race



ACS120 Stopwatch III



Abnormal procedure

Stopwatch III running race start procedures

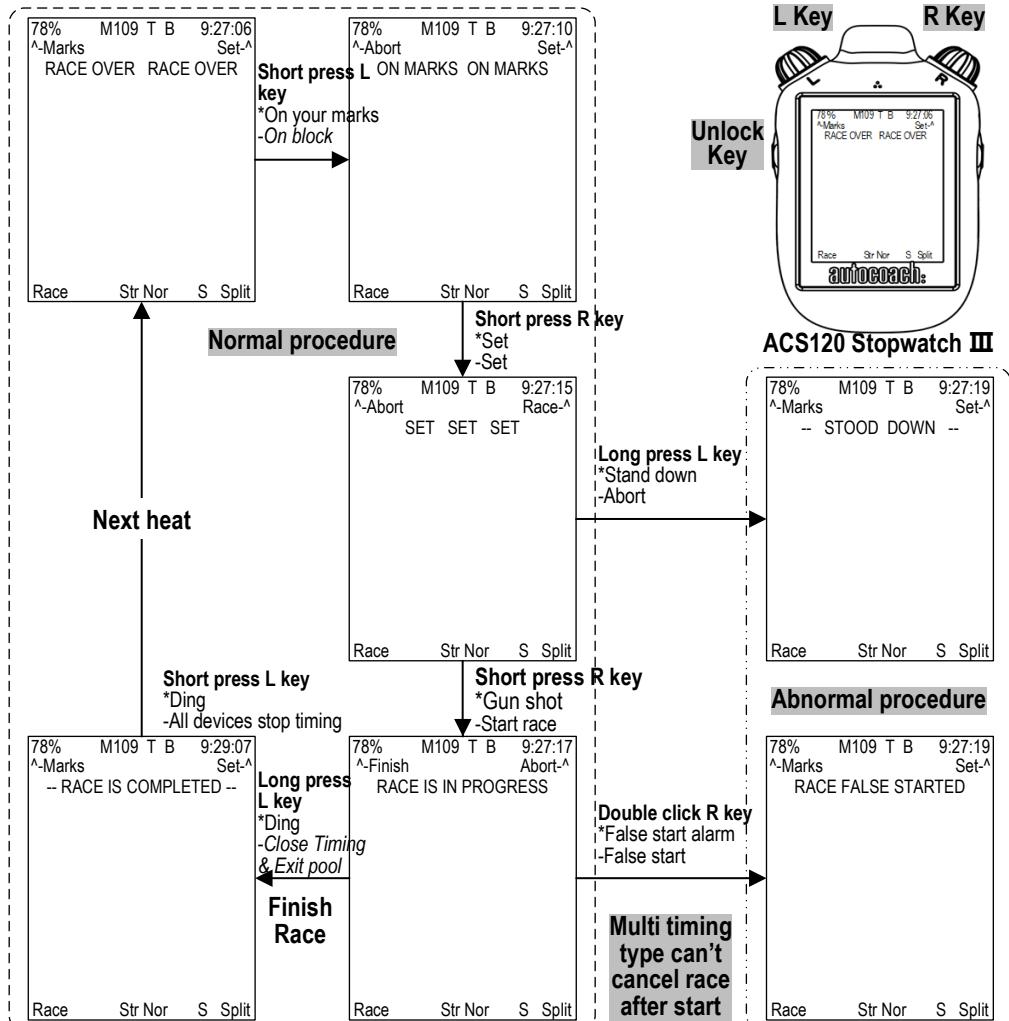
timing by slave watch

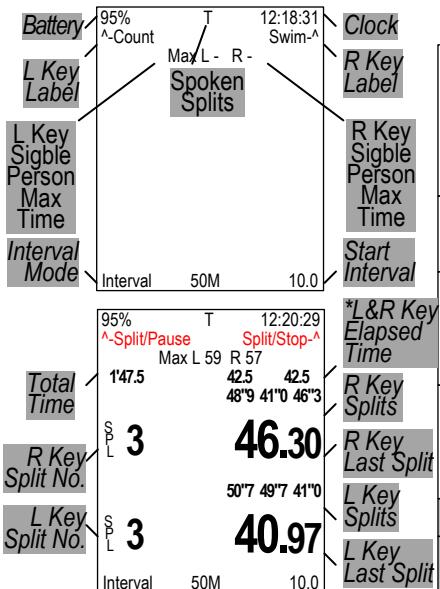
Setup start watch (master watch)

1. Hold **Unlock** key & rotate **L** key to **Setup** mode.
2. Rotate **L** key to **Starts**, rotate **R** key to select start method, long press **R** key to store.
3. Rotate **L** key to **Race Type**, rotate **R** key to **Swim**, long press **R** key to store.
4. Hold **Unlock** key & rotate **L** key to **Race** mode.
5. Hold **Unlock** key & rotate **R** key select timing type for slave watch. **Singl** only record finish time for one person. **Split** can do multi split times for one person. **Multi** means L/R key can record finish times for multi persons in marathon race.

41%	T	15:26:47
^Reset Pace	Save-^	Option
Setting	Starts	Ovr Top
	Lane Order	Normal
	Course	Str Top
	Training	Str Nm
	Race Type	Str Man
	Match Period	
	Pacetest Step	
		Race mode starting method.
		Str modes need timekeepers.
		Man modes are for Officials.
	Setup	Net ID
		30

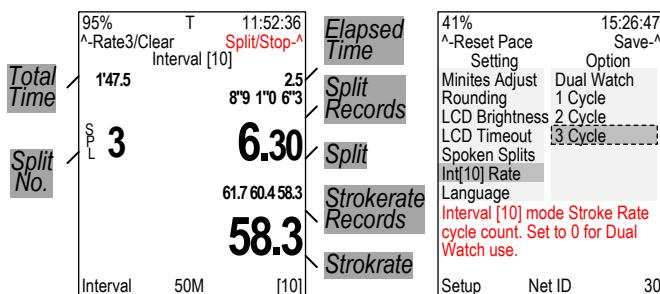
41%	T	15:26:47
^Reset Pace	Save-^	Option
Setting	Starts	Swim
	Lane Order	Athls
	Course	
	Training	
	Race Type	
	Match Period	
	Pacetest Step	
		Select what sports mode the stopwatch will be configured for use with.
	Setup	Net ID
		30





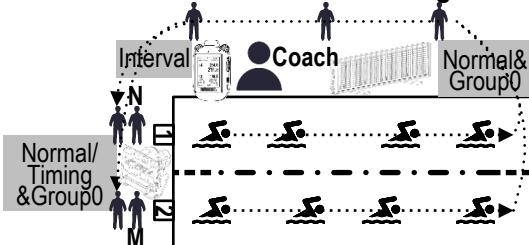
Pre Set	L key start type	Set "Training" in setup mode
	Start Interval	Hold unlock key & rotate R key
	Rapid Spread	Start interval set to [10]. Only show split numbers below 10s for rapid spread.
Start	Race Type	Short press R key when idle
	Train Type	Short press L key when idle
Timing	Timing	Short press R/L key when active
	Pause/Resume	Long press L key when active
	Stop Timing	Long press R key when active
Screen	Review	Rotate L key
	Clean	Long press L key when idle
	Recall	Press unlock key when idle
	Spoken Splits	Enable Spoken Splits in setup mode

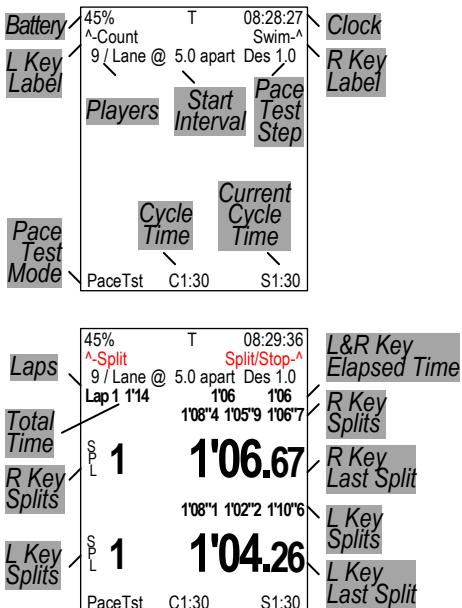
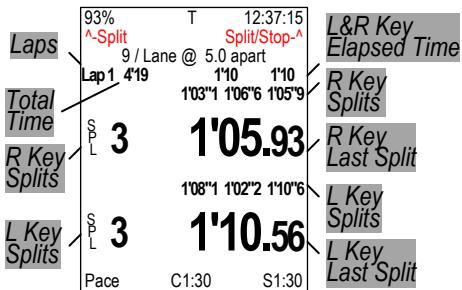
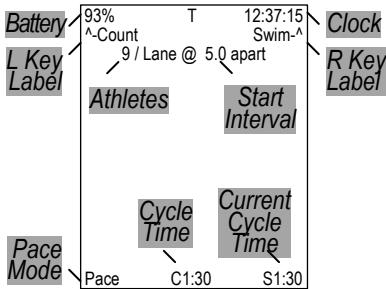
*Max L/R If more than Max L/R, L/R key elapsed time (second) auto subtract start interval for next swimmer .



Interval Mode
Rapid spread + Strokerate
Set start interval time to [10] to rapid spread mode. Only show split numbers below 10s for rapid spread. Use for one lane training.
In setup mode, set **Int[10]** Rate to 1/2/3 Cycle for **L** key strokerate.

Interval Mode Field Diagram

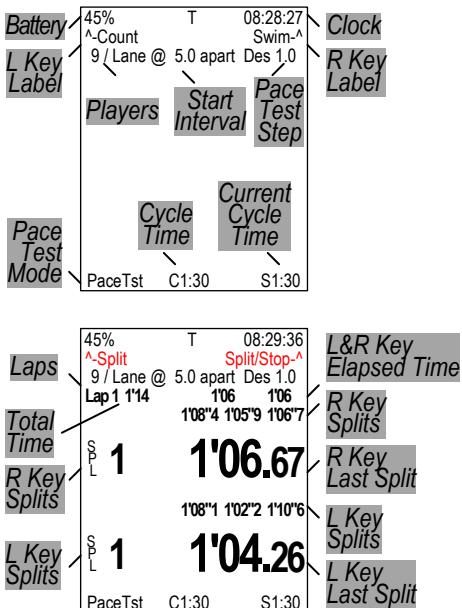
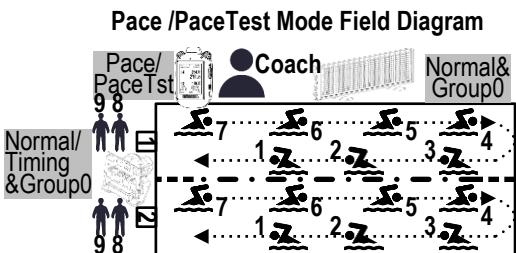




Pace Mode

Pre Set	Start Type	Set "Training" in setup mode
	Start Interval	Hold unlock key & rotate R key
	Athletes	Rotate R key
	Cycle Time	Rotate L key
Start	Race Start	Short press R key when idle
	Train Start	Short press L key when idle
	Timing	Short press R/L key when active
Screen Timing	Stop Timing	Long press R key when active
	Clean	Long press L key when idle
	Recall	Press unlock key when idle

Can set new cycle time during timing, 5 slave watches (Group 0-4) support up to 10 lanes.



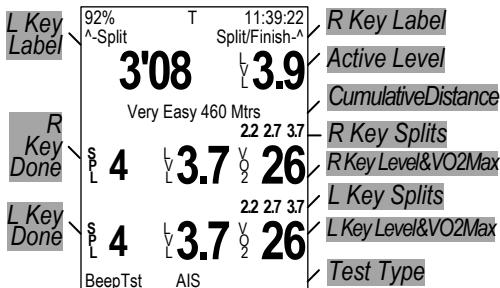
Ready

ON Marks!

Portable Display Status

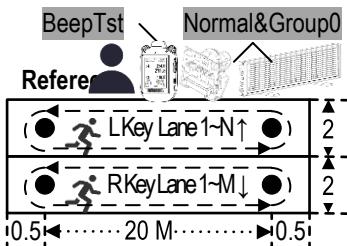
L1 @ 1:30

BeepTst Mode

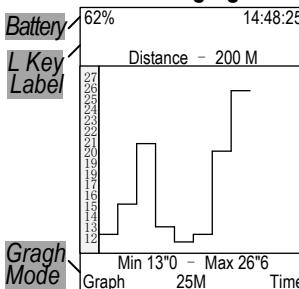


Start	Short press R key when idle
Record	Short press R/L key when active
Stop	Long press R key when active
Volume	Rotate R key
Select	Hold unlock key & rotate R key
Test Type	AIS : Australia Institute BNCF: British National Coach Federation WP10: 10 meters water polo WP20: 20 meters water polo

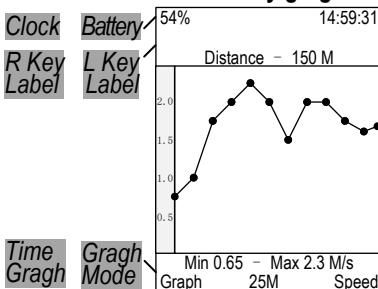
BeepTest Mode Field Diagram



Time graph



Velocity graph



Graph Mode

Show Split times in bar graph and Split velocities in line graph for Watch /Speed /Race modes records (more than 3 Laps).

Group 0

95%
^Mode T 15:48:52
Period Timer Start/Pause-^
12'49.3
Match Period
Home Visitors
15 **18**
Home Points **Visitor Points**
Score Hm Vi Group 0

Points (Home vs Visitor)

H15 **V18**
Period Time mm:ss
12:49

#3
Speaker **#5**


39%
^Reset Pace
Setting Starts
Lane Order Course
Training Race Type
Match Period
PaceSet Step
Score mode match period time
before the air horn sounds when
the period timer expireds.

Setup Net ID 30

Group 0

Watch #1 Score mode,
hold **unlock** key & rotate
R key to display **DV# DD**
95% T 15:48:52
^Mode Start / Pause-^
Period Timer
13'14
Match Period
Diving # Difculty
5 **3.5**
Round **Difculty**
Digital
Score Dv# DD Group 0

Round **Difculty** **Digital**
#5 **D3.5**

Group 1

95%
^Mode T 15:48:52
Period Timer Start/Pause-^
26.0
Shot time
Home Visitors
2 **5**
Home Fouls **Visitor Fouls**
Score Hm Vi Group 0

Mini Portable Display

#4
H2V5
Shot time s
26.0

Score Mode

Need 2 stopwatches & 2 portable displays (#4 can be mini display), 1 speaker. Stopwatch can setup period time/shot timing. Portable display show score/period time /shot time. Speaker announce when period/shot time down to 0.

All devices need same **Net** and **Channel**. Device #1/3/5 set to **Group 0**, #2/4 set to **Group 1**.

Also can use PC (Immerse Manager Pro program) to connect with multi-function display (MFD) to display score board. Refer to related user manual.

Note: Portable display I (ACS250 /ACS200) can not display fouls.

In Score mode, hold stopwatch Unlock key & rotate R key to display Hm Vi . Shot time will automatically pause/resume with period time.							
#1 watch control #3 display				#2 watch control #4 display		Match Period	
Points	Show	Short press L key	Fouls	Show	Short press L key	For #2 watch (group 1), The unit of Match Period is seconds (not minutes) for shot time .	
Home	Rotate L key		Home	Rotate L key			
Visitors	Rotate R key		Visitors	Rotate R key			
Period Time	Show	Long press L key	Shot Time	Show	Long press L key		
Timing	Short press R key		Timing	Short press R key			
Pause	Short press R key		Pause	Short press R key			
Reset	Long press R key		Reset	Long press R key			

Diving Mode

Setup **Match Period / Diving Time** in **Setup** mode.

Group 0		Watch Operations	Group 1	
Time	Dv# DD	Show	Event	Heat
	Dv#	Rotate L key	Event	
	DD	Rotate R key	Heat	
Time	Show	Long press L key	Show	
	Timing	Long press R key	Timing	
	Pause	Long press R key	Pause	Time
	Resume	Long press R key	Resume	

Portable Display #3
Group 0

Group 1

Watch #2 Score mode,
hold **unlock** key & rotate
R key to display **Ev Ht**
95% T 15:48:52
^Mode Start / Pause-^
Period Timer
12.6
Diving Time
Event Heat
4 **2**
Event **Heat**
Score Ev Ht Group 1

Event **Heat**
E4 **H2**

Setup Mode		
Battery	41%	T 15:26:47 Save-^
L Key Label	^Reset Pace Setting	Option
Active Item	Starts Ovr Top	Clock R Key Label
Item Detail	Lane Order Normal	Older Value
Setup Mode	Course Str Top	Select New Value
	Training Str Nrm	Net ID
	Race Type Str Man	30
	Match Period	
	Pacetest Step	
	Race mode starting method.	
	Str modes need timekeepers.	
	Man modes are for Officials.	
	Setup Net ID	

Setup mode operations	
Select Item	Rotate L key
Select Value	Rotate R key
Save Value	Long press R key until sound "Stored"
Reset Pace Clock	Short press L key reset Pace Clock of portable display

Starts	Start method of Race mode
Lane Order	Pool lanes number ordering
Course	Course length
Training	Training race start sounds of Interval/Pace/PaceTst mode of left key pressed
Race Type	Race Start sounds of Race/Interval/Pace/PaceTst mode of R key pressed
Match Period	Match Period time of Score mode
Pacetest Step	Cycle time decline step Of PaceTst mode
Rate Count	Strokerate cycle count of Watch/Speed mode
Channel	2.4GHz wireless channel number
Hours Adjust	Sets the time of day clock hours
Minutes Adjust	Sets the time of day clock minutes
Rounding	Resolution of LCD timing display
LCD Brightness	Lower brightness for longer battery life
LCD Timeout	High brightness LCD timer duration
Spoken Splits	Enable/Disable spoken time/splits
Int[10] Rate	Interval[10] mode Strokerate cycle count
Language	Select stopwatch UI language

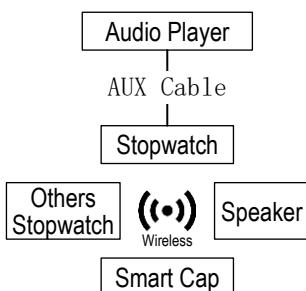
Splits Mode

R/L Key Datas	Short press R/L key
Select Lap	Rotate L key

Battery	38%	T 17:25:31	Clock
L key data	^L Lane	R Lane-^	R key data
Lap	Lap 2 of 2	50M	Distance
Split time	Split	[54'58]	
Split Acc	Accumulative	1'49"02	
Stroke Velocity	Velocity	1.18 0.99 0.58 1.02	
Stroke Rate	Rate	57.9	
Work mode	SI	24.1	
	Mode:	Speed	
Total distance	137M	Lane 0	
		100%	
Splits mode	Splits	50M	Right

85%	15:34:07	Start-^
^Rate3/Clear		
Press PTT key to emit	Rotate R key select devices	
PTT	25M	- ALL -

Battery	52%	T 17:10:35	Clock
Eraser All records	^Erase All	Recall-^	Recall records
Date time	2023 Nov 29 15:25:44		
Laps /Course /Lane	4 Laps 25 Ln0		
Memory mode	Watch Mode		
R/L key data	Memory	1 of 82	Recs



Audio Emit

Connect stopwatch with audio player by AUX cable. Press PTT button to enable audio emit. Rotate R key to select receiver device (stopwatch/speaker/smart cap).

autocoach:

Tel : +61 3 9029 0973

Mail: enquires@autocoach.com.au

Web: www.autocoach.com.au

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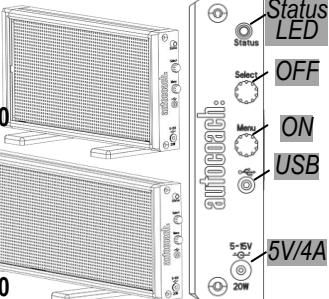
▲ Devices can work together (same Net & Channel).

Contact AutoCoach to set Net.

▲ Reset device when battery not flat if abnormal work.

Portable Display III User Guide

For V1.48+ Firmware



Packing List
Display & Portable Bag
USB-3.5mm Cable
5V/4A Power Pack & D Cords

ACS270

Mode	Rotate ON key to desired mode, rotate OFF key select value, long press ON key to "Saved".		
Normal	Default mode, can set 01/01 second timing resolution. Show lap time, split time, velocity, strokerate, BeepTest level, race meet information. Will switch to Normal mode when stopwatch timing. Resume old mode when stopwatch idle.		
Clock	24 hours (hh:mm:ss or hh:mm) real time clock		
Pace	Two 60s clocks (30s difference) copy analog pace clock.		
ACS270 Pace 5/ Pace 10	Advanced pace clock with 6 characters (red/yellow/green/cyan/magenta/blue, 1~9-0-B~Q). Cycle time (0:15~4:35/0:15~5:00) of each color increase 5/10s from left to right. Swimmer start with personal color character.		
CountUp/CntDown	Count up/down timer (0-2 hours), down to 0 to switch Up/Down.		
Group	Group 0 is 1st&2nd lanes, group 1 is 3rd&4th lanes, etc.		
Channel	2.4GHz wireless channel (odd 11-25)		
Swap	Swap layout of left/right lanes. Stopwatch start timing in race mode to check lane number.		
Others Operations	Turn On	Long press ON key to "Net..." & "Grp..."	
	Turn Off	Long press OFF key to "OFF". Idle 45mins auto off.	
	Reset	Hold two keys about 15s until green led start fast flashing.	
	Adjust Brightness	Rotate OFF key when idle	
	Show Battery & Net ID	Short press ON key	
	Show Group & Channel	Short press OFF key	
	Status LED (RGB)	Status:OFF(off)/Idle(slow flash)/Timing(fast flash) Signal: Blue (good), Green (normal), Red (bad) Battery: Blue>75%, Green 20~75%, Red <20% Charging: Constantly red	
Specifications			
Model	ACS270		ACS220
Wireless	2.4GHz/100mW		
LED Matrix	128*32	64*32	
Characters	8*1/16*2	4*1/8*2	
Time Range	9:59:59	59:59	
Lanes	2	2 (in turn)	
Power Pack	5V/4A		
Battery	3.7V/37WH		
Environment	-40~60°C, 20~90%RH		
IP Grade	IP66		
Dimensions/cm	70*20*5	38*20*5	
Net Weight	3.6kg	2.1kg	
Package	7kg	3.3kg	

Optional Accessories		
ACS203 Tripod	Mount 1pcs ACS270	Metal/3.5kg/50kg Load/1~1.86m height /102*28*39cm ³ packed
ACS205 Tripod	Mount 5pcs ACS270	Metal/5kg/80kg load /1.3~2.1m height /102*28*39cm ³ packed
ACS202 Tripod	Mount 1pcs ACS220	Metal & plastic /1kg/1.63m height /55cm packed length

Portable Display Screenshots

Stopwatch @ Watch Mode

9.9	9.9
-----	-----

Elapsed Time (Green)
ss

59:59	59:59
-------	-------

mm:ss

1:02:03	1:02
---------	------

hh:mm:ss
/hh:mm

1:35:27.49	15.74
------------	-------

Split Time (Yellow)

R 53	R 53
------	------

Strokerate (Magenta)

Stopwatch @ Speed Mode

R 53	V1.5	V1.5
------	------	------

Split Velocity (Yellow)

R 53	16:24	R 53
------	-------	------

Strokerate (Magenta)

Stopwatch @ Interval/Pace Mode

59	59	59 59
----	----	-------

ss

1:14	1:14	1:14
------	------	------

Elapsed Time (Green)
mm:ss

1:26.31	1:35.4	1:35.4
---------	--------	--------

R Key Split Time(Yellow)	
--------------------------	--

L Key Split Time(Magenta)

1:26.3

Stopwatch @ PaceTst Mode

L1	@ 1:50	Lap 1
----	--------	-------

L10.10	10.10
--------	-------

*Stopwatch @ Score Mode

H105	V108
------	------

H: Home team
V: Vistor team

*Stopwatch @ Score Mode

Count Up/Down Timer h:mm:ss

2:00:00	15:00
---------	-------

Clock Mode hh:mm:ss / hh:mm

Clock	Clock
-------	-------

16:52:47	16:52
----------	-------

• Longer strings scroll to left.

* Need rotate ON key to exit Score mode

Elapsed Time (Green)

ss

mm:ss

hh:mm:ss
/hh:mm

Split Time (Yellow)

Strokerate (Magenta)

ACS270

Lanes No. (Red)

10

9.9

12.15

1:32.61

12.15

ACS220

Stopwatch @ Race Mode

10

9.9

13.16

13.16

Elapsed Time (Green)

R Key Split Time (Yellow)

L Key Split Time (Magenta)

Start Infos

Ready.

Abort !

ON Marks!

False Start!

Ev 4 Ht 1 of 2

Mixed Open 50 br Prel

Ev 5 Ht 1 of 1

Boys Open 200 br Prel

Ev 6 Ht 1 of 1

Girls Open 200 br Prel

Msl Ev 9

Ev 6 Ht 1 of 1

Msl Ev 9

Speaker @ Relay Mode

Rly:Changeover Time (s)

Rly .139

Rly .162

Rly .139

Lane1

Rly .162

Lane2

Rly -.021

Rly -.028

Rly -.021

Lane1

Rly -.028

Lane2

False Start

Speaker @ BlockTime

R:Reaction Time (s) B:Block Time (s)

R --B --

R .38B1.02

R --B --

R .38B1.02

Lane1

Lane2

Speaker @ WallTime Mode

W:Wall Time (s)

W1 .145

W2 .85

W1 .145

Lane1

W2 .85

Lane2

Check Display Paramters

Bat 79%	
---------	--

Net 259	
---------	--

Grp 0	
-------	--

Chn 15	
--------	--

AutoCoach:	
------------	--

V1.47	
-------	--

Operator

Short press ON key	
--------------------	--

Group Channel	
---------------	--

Short press OFF key	
---------------------	--

Firmware Version	
------------------	--

Hold ON+OFF key about 15s	
---------------------------	--

Pace

00 30

Pace 5
1:10-1:35

111111 00

741889 49

→T
Cycle
Time
1+25s
T+20s
T+15s
T+10s
T+ 5s

Pace 5
1:00-1:25

43218731

Athl etes	Cycle Time /s									
	60	65	70	75	80	85				
1	1	1	1	1	1	1				
2	2	2	2	2	2	2				
3	3	3	3	3	3	3				
4	4	4	4	4	4	4				
5	5	5	5	5	5	5				
6	6	6	6	6	6	6				
7	7	7	7	7	7	7				
8	8	8	8	8	8	8				
9	9	9	9	9	9	9				
10	0	0	0	0	0	0				
11	B	B	B	B	B	B				
12	C	D	E	F	G					
13	D	E	F	G						
14										
15										
16										

Pace 5
0:55-1:20

9753EF31

Athl etes	Cycle Time /s									
	55	60	65	70	75	80	85	90	95	105
1	1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9	9
10	0	0	0	0	0	0	0	0	0	0
11	B	B	B	B	B	B	B	B	B	B
12	C	D	E	F	G	H	I	J	K	
13	D	E	F	G	H	I	J	K		
14										
15										
16										

Character display time
10s
5s
0s

Pace

00 30

Pace 10
1:10-2:00

111111 00

13251B 42

→T
Cycle
Time
1+25s
T+20s
T+15s
T+10s
T+ 5s

Pace 10
1:00-1:50

63236B50

Athl etes	Cycle Time /s									
	60	65	70	75	80	85	90	95	100	110
1	1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9	9
10	0	0	0	0	0	0	0	0	0	0
11	B	B	B	B	B	B	B	B	B	B
12	C	D	E	F	G	H	I	J	K	
13	D	E	F	G	H	I	J	K		
14										
15										
16										

Pace 10
0:55-1:45

951EC031

Athl etes	Cycle Time /s									
	55	60	65	70	75	80	85	90	95	105
1	1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9	9
10	0	0	0	0	0	0	0	0	0	0
11	B	B	B	B	B	B	B	B	B	B
12	C	D	E	F	G	H	I	J	K	
13	D	E	F	G	H	I	J	K		
14										
15										
16										

Portable Display Pace mode

ACS270/ACS220

Two 60s timers for pace training. Cyan and yellow timer are 30s difference. Replace traditional analog pace clock.

Portable Display Pace5/10 mode

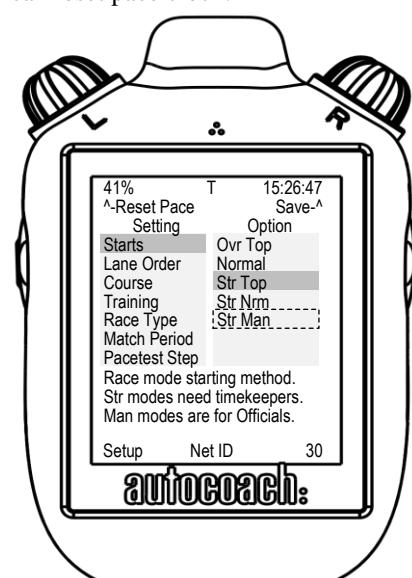
Only for ACS270

Amazing advanced pace clock for team pace training. Cycle time range is 0:15~4:35 (Pace 5) or 0:15~5:00 (Pace 10). 6 characters (1-9-0-B-Q) in difference colors

(red/yellow/green/cyan/magenta/blue) for 6 difference cycle times. From left to right, the cycle time of each color increase 5s (Pace 5) /10s (Pace 10). Each character will display 5/10 seconds. One color one lane. Each swimmer start with personal character (such as red 6). Faster swimmer start first.

The two white numbers in right side is 60s timer.

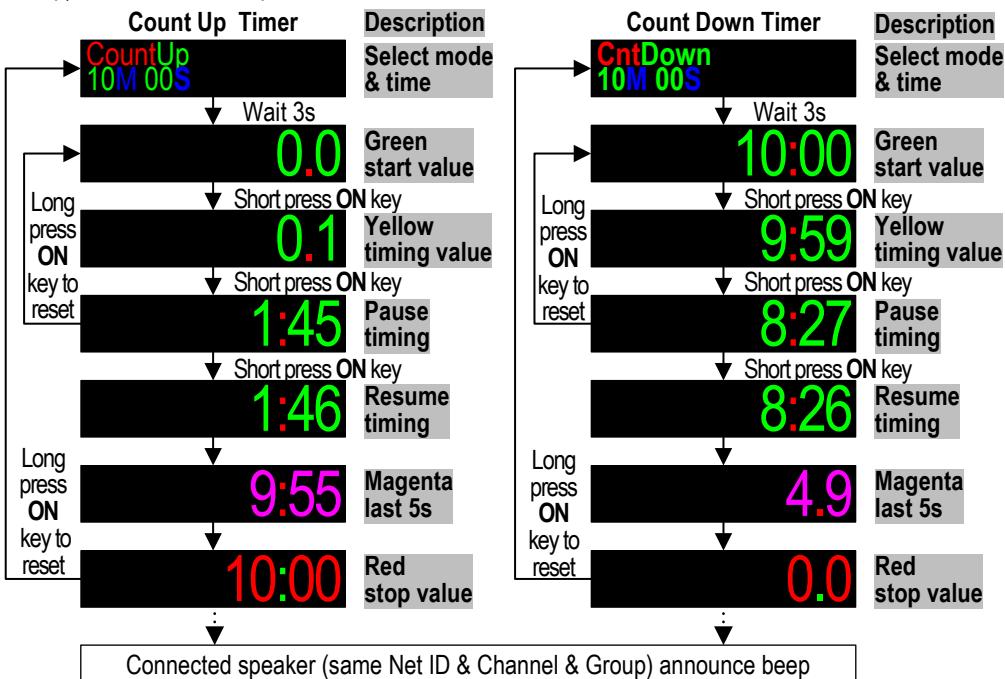
Short press ON Key of portable display (Pace/Pace 5/Pace 10 mode) or L key of connected Stopwatch (Setup mode) can reset pace clock.



ACS270/ACS220 Portable display III Timer mode

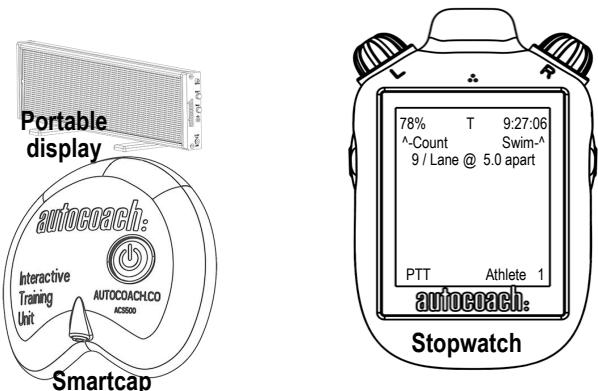
Rotate **On** key to “**CountUp**” / “**CntDown**”, rotate **OFF** key to select value. When value down to 0, can change mode between **CountUp** / **CntDown**.

When timer go up/down to the target value, the connected speaker (same Net ID & & Channel & Group) will announce beep.



ACS270 Portable Display work with smartcap

Lap	Lap Time
L1	11.3
Split	Split Time
S2	18.6
Training time	
37.9	



autocoach: Speaker III Under Guide V5.06 For V1.48+ Firmware

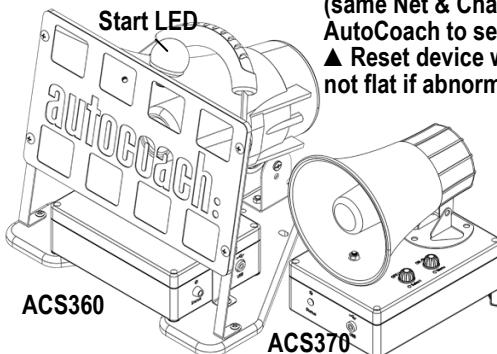
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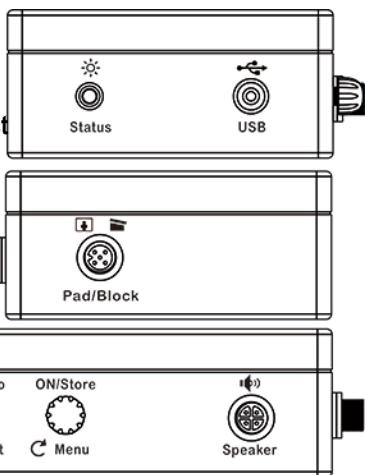
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Speaker announce race/training start signal and timing result. Connect with touchpad & start block can test reaction/black/relay/turning time.



▲ Devices can work together (same Net & Channel). Contact AutoCoach to set Net.

▲ Reset device when battery not flat if abnormal work.



Mode	Rotate ON key to desired mode. Rotate OFF key select Channel/Group value, long press ON key to save.	
Normal	Default mode without spoken time result	
Timing	Add spoken time result base Normal mode	
Relay	Relay training (refer stopwatch manual)	
BlockTime	Start training (refer stopwatch manual)	
WallTime	Turning training (refer stopwatch manual)	
Channel	2.4GHz wireless channel (odd 11-25)	
Group	Group 0 is 1st&2nd lanes, group 1 is 3rd&4th lanes...	

Others Operations	Turn On	Long press ON key to sound "ON"
	Turn Off	Long press OFF key to sound "OFF". Idle 45mins auto off.
	Reset	Hold Two keys 15s to green led start fast flashing
	Volume	Rotate OFF key
	Check Battery/Group	Short press ON key
Check Mode&Channel		
Short press OFF key		

Start LED	White LED flash one time when start timing
Status LED (RGB)	Status:OFF(off)/Idle(slow flash)/Timing(fast flash) Signal: Blue (good), Green (normal), Red (bad) Battery: Blue>75%, Green 20~75%, Red <20% Charging: Constantly red

AC311 cable Description

Relay/start/turning training refer stopwatch manual.
Red plug is positive, black plug is negative.
Red/Black cable → touchpad1, Blue/Black cable → startblock1,
Yellow/Black Cable → touchpad2, Green/Black cable → startblock2.

"T" support touchpad & block		
Model	ACS360T	ACS370T
ACS360	ACS370	
Wireless	2.4GHz/100mW	
A/D Jack	No start signal output	
Volume	>110dB	>95dB
Power Pack	5V/1A/3.5mm plug	
Battery	3.7V/17.76WH	
Environment	-40~60°C/20~90%RH	
IP Grade	IP66	
Dimensions cm	29*25*26	17*12*22
Net Weight	2.8kg	1kg
Package	3.3kg	1.2kg

Packing List	
Speaker	AC321 Carry bag (mini speaker)
5V/1A Power pack	USB-3.5mm Cable
Optional Accessories	
AC203 Tripod	Metal/3.5kg/50kg load /1~1.86m height /102*28*39cm ³ packed
AC311 Pad&Block Cable	Dual lanes Touchpad & Startblock adapter cable

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Timing Button III User Guide V5.06

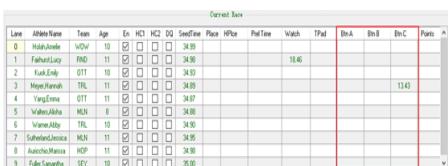
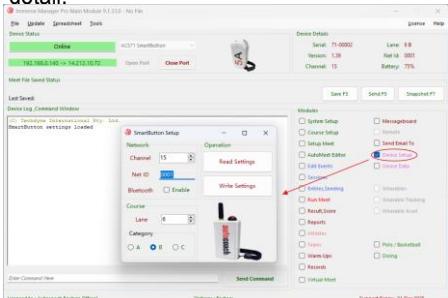
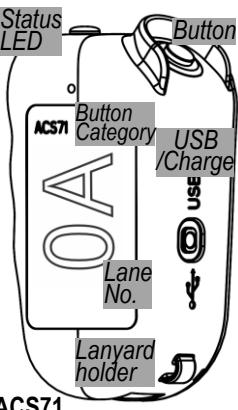
For V1.48+ Firmware

▲ Devices can work together (same Net & Channel). Contact AutoCoach to set Net.

▲ Reset device when battery not flat if abnormal work.

Timing button can work with other autocoach devices when they are same **Channel & Net ID**. When devices connect with computer by usb cable and open with Immerse Manager Pro program, it will display the settings in the main window. Can set up **Channel, Lane, Category** in device setup window. **Contact Autocoach to set Net ID**.

Each lane support 3 timing buttons (button category A/B/C). Timing result will locally store and also remotely store in Immerse Manager Pro program of computer. Multi-press timing button at endpoint, system will use the last time as final time of this button. Refer to Immerse Manager Pro manual for more detail.



Turn On	When it is off (led off), hold button down about 2 seconds until led slowly flash. It will sound volume up tone.
Turn Off	When it is idle (led slowly flash), hold button down about 2 seconds until led off. It will sound volume down tone. * Not allowed turn off when it is timing.
Timing	Short/long press button when it is timing
Reset	Hold button down about 15 seconds until status led fast flash to start reset.
Status LED (RB)	Status: OFF(off)/Idle(slow flash)/Timing(fast flash) Signal: Blue (good/normal), Red (bad) Battery: Blue>20%, Red <20% Charging: Constantly red

Specifications

Wireless	2.4GHz/100mW	Power Pack	5V/1A
Dimensions	51*110*15mm ³	Battery	3.7V/7.4WH
Environment	-40~60°C, 20~90%RH	Net Weight	82g
IP Grade	IP66		

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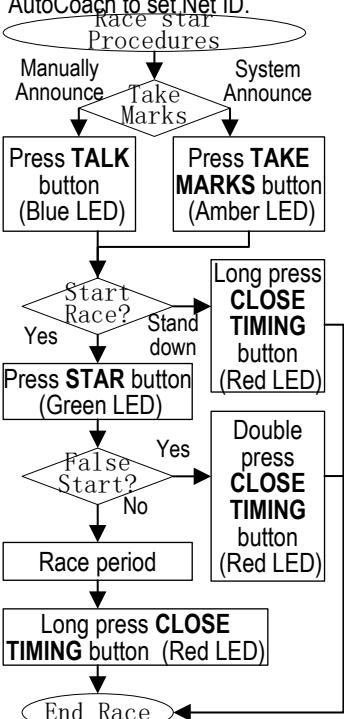
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▲ Devices can work together (same Net & Channel). Contact AutoCoach to set Net.

▲ Reset device when battery not flat if abnormal work.

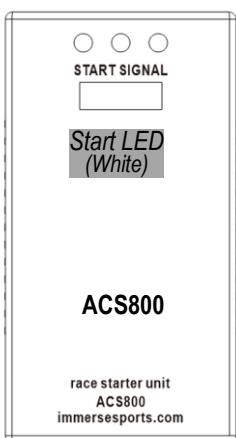
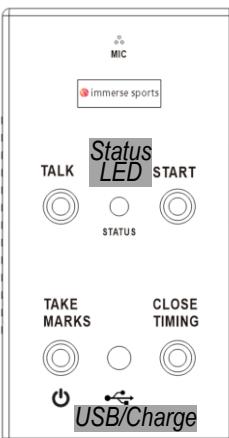
Starter can operate race start procedures. Need work with Connected Transceiver and speaker (same Net ID & Channel settings). Use Immense Manager Pro program to setup Channel. Contact AutoCoach to set Net ID.



Specifications	
Wireless	2.4GHz/100mW
Power Pack	5V/1A
Battery	3.7V/7.4WH
Environment	-40~60°C, 20~90%RH
IP Grade	IP54
Dimensions	150*80*38mm ³
Net Weight	170g

Starter III User Guide V5.06

For V1.48+ firmware



Note	Starter only work when Immense Manager Pro program connected with transceiver. Don't use with stopwatch.
Turn ON	Hold TAKE MARKS key 2s until status led flash. TALK key (Blue LED) and TAKE MARKS Key (Amber LED) will active when it is ON.
Turn OFF	When it is idle (Blue & Amber Keys active, Green & Red keys inactive, Status led slowly flashing), hold TAKE MARKS key 2s until red Status LED flash 3 times, then it turn off all LEDs and be OFF. Not allowed turn off if transceiver is active.
Reset Device	Hold both TAKE MARKS & CLOSE TIMING keys about 15s until green status led start fast flash.
Talk /Ready	Hold TALK key and talk to microphone. Inform athletes aboard block or enter water to get ready.
Take Marks	Press TAKE MARKS key , speaker announce "Take your marks".
Start	Press START key, speaker announce start beep and system start timing.
Close Timing	Long press CLOSE TIMING key to close timing, speaker will announce "Ding".
Stand Down	After take marks, long press CLOSE TIMING key to cancel start. Speaker announce "Stand down".
False Start	When it is timing, double press CLOSE TIMING key, speaker will announce "False start" alarm.
Start LED	White LED flash one time when start timing
Status LED (RGB)	Status:OFF(off)/Idle(slow flash)/Timing(fast flash) Signal: Blue (good), Green (normal), Red (bad) Battery: Blue>75%, Green 20~75%, Red <20% Charging: Constantly red

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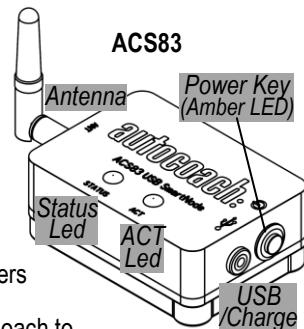
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Transceiver III User Guide V5.06

For V1.48+ firmware



▲ Devices can work together (same Net & Channel).

Contact AutoCoach to set Net.

▲ Reset device when battery not flat if abnormal work.

Transceiver connect with computer by USB cable, it is the wireless communicate bridge between Immerse manager Pro program and others timing devices. All devices need set to same **Net ID & Channel**.

Use Immerse Manager Pro program to setup **Channel**. Contact AutoCoach to set Net ID.

Note	All others devices doesn't allowed turn off or hibernate when transciever is ON.
Turn ON	Hold Power key 2s until Power LED & status led slowly flashing.
Turn OFF	When no timing (Status & Power leds slowly flashing, ACT LED is OFF), hold Power key 2s until Status Red LED flash 3 times, then it turn off all LEDs and be OFF.
Reset Device	Hold Power key 15s until green status led start fast flashing.
Status LED (RGB)	Status:OFF(off)/Idle(slow flash)/Timing(fast flash) Signal: Blue (good), Green (normal), Red (bad) Battery: Blue>75%, Green 20~75%, Red <20% Charging: Constantly red
ACT LED (RGB)	Starting(blue) / timing(green) / close timing(red) / standby(OFF)
Power Key	ON : device is on.
Amber LED	OFF: device is off.

Specifications	
Wireless	2.4GHz/100mW
Power Pack	5V/1A
Battery	3.7V/11.1WH
Environment	-40~60°C, 20~90%RH
IP Grade	IP66
Dimensions	123*60*39mm ³
Net Weight	135g

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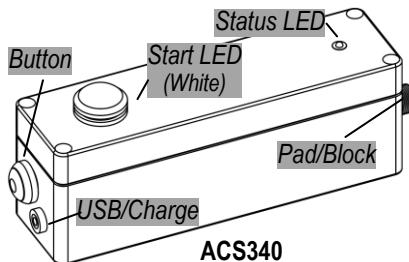
▲ Devices can work together (same Net & Channel).

Contact AutoCoach to set Net.

▲ Reset device when battery not flat if abnormal work.

Touchpad Box III User Guide V5.06

For V1.48+ Firmware



ACS340

Turn On	When it is off (led off), hold button down about 2 seconds until blue led flash. White start LED will flash 3 times.
Turn Off	When it is idle (blue led slowly flash), hold button down about 2 seconds until white start LED flash 3 times and all leds off. * Not allowed turn off when it is timing.
Reset	Hold button down about 15 seconds until status LED fast flash.
Start LED	White LED flash one time when start timing. Flash 3 times when turn on/off.
Status LED (RB)	Status:OFF(off)/Idle(slow flash)/Timing(fast flash) Signal: Blue (good/normal), Red (bad) Battery: Blue>20%, Red <20% Charging: Constantly red

AC311 cable Description

Red plug is positive, black plug is negative.

Red/Black cable → pad1, Blue/Black cable → block1,

Yellow/Black Cable → pad2, Green/Black cable → block2.

Specifications

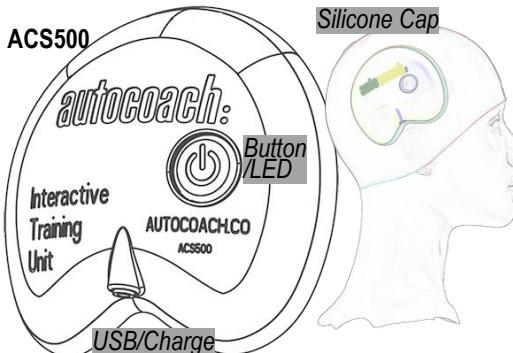
Wireless	2.4GHz/100mW
Power Pack	5V/1A
Battery	3.7V/11.1WH
Environment	-40~60°C, 20~90%RH
IP Grade	IP66
Dimensions	181*45*67.5mm ³
Net Weight	180g

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Smart Cap I User Guide V5.06

For V1.35+ Firmware

Smart cap built-in bone speaker, wear with silicone swimming cap, work independently or together with stopwatch. Provide various real time voice feedback during the whole swimming training. Also can receive voice guide from coach by stopwatch. Built-in high-precision motion & GPS sensors can record motion gesture and path of particle for further graphic data analysis by Autocoach Manager program.



Work with stopwatch with same **Net ID** & Channel. Hold **Talk** key and rotate **R key** to select target athletes (Athlete1~16/Line1~2)

Work Mode	Talking	Team training. Receive private start signal & timing result from stopwatch.
	Auto Time	Individual training. Announce custom timing options without stopwatch.
	Tracking	Open water swimming. Trace path of particle by GPS sensor. * Available for ACS500G.
	Turn On	Press button down 3 seconds until green led flash. It will sound "On ... Battery *%".
	Turn Off	Press button down 3 seconds until leds off. It will sound "Shuts down ... Off".
	Change Mode	Double click button when idle.
	Battery Level	Click button in Talking mode.
	Reset	Hold button down about 15 seconds until reboot. Will report firmware version/Net ID/Channel/Athlete number/Battery level.
Operation		

ACS500 Specifications		
LED	Wireless	2.4GHz
Off	All LEDs Off	Power Pack 5V/1A
Idle	Green /Red	Battery 3.7V/0.75AH
Timing	Short flash	Environment -40~60°C
Charge	Amber	Ingress Protection IP67
	Long flash	Dimensions 11*10*3cm ³
	On	Net Weight 120g

▲ Devices with same Net & Channel can work together. Contact AutoCoach to set Net.

▲ Reset device when battery not flat if abnormal work.



Connect Smart cap with computer and open with Autocoach Manager program, can setup **Channel/Athlete Num/Auto timing options**

Auto Timing Options

Reset Time	Split Times
Head Tilt Start	Stroke Index
Glide Warning	Stroke Rate
Turn Times	Session PBs
Push-off	Cumulative Times
Lap Numbers	Cumulative
Split Numbers	Technique Hints

Tel : +61 3 9029 0973

Mail: enquires@autocoach.com.au

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New User's guide

1. Recommend operate devices refer this document. It is the most easy way to understand basic operations.
2. Understand devices relationship in topology graph.
3. Understand all devices need to set to same **Net ID & Channel** so that they can work together. Each organization's devices has unique **Net ID**, so that they don't affect other's devices in same filed. Please contact device provider if need change **Net ID**.
4. Understand the relationship between **Group** setting and lane number about watch/Speaker/portable display.

Group	Lane No. (0-9/9-0)	Lane No. (1-10/10-1)
0	0&1	1&2
1	2&3	3&4
2	4&5	5&6
3	6&7	7&8
4	8&9	9&10

Portable display Group 5-7 are special setting for display marshalling/event information. Refer to system setup module of Immerser Manager Pro program.

5. Understand with various application scenes about difference work modes of stopwatch/speaker/portable display.
6. Understand how to turn on/turn off/reset device, and how to change/save device settings. Understand device status led behavior (red/green/blue/white color, slowly/fast flashing).
7. Understand basic operation procedure
Turn on → select work mode & settings → put device in proper position → speaker connect with touchpad & start block → filed testing → confirm lane number correct → start to use.
8. Refer Immerser Manager Pro program to do related operations.
9. Carefully maintain devices. Fully charge battery every 3 months to get longer battery life. Wipe off water of surface and clean device after finish using, and keep it in original carry bag.
10. **When found water intrude into device case, turn off device immediately and wipe off water. Contact device provider to get proper service. Don't try to charge or turn it on again, otherwise no chance to fix it.**

FCC Caution.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement:

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.