

## Parts List

### Swim Pace Display Kit

Swim Pace Display unit  
14" of Velcro tape  
50' of phone cord  
Water-tight enclosure fitting  
Reducing bushing

### Tools Required (supplied by others)

Staple gun  
Hammer  
Drift or punch

## Description

The Swim Pace Display provides a useful indication of the speed of the water flow in the Endless Pool and Fastlane. It can be mounted indoors or outdoors in a variety of locations. It can also be set to show speed in different formats.

## Planning Considerations

The Swim Pace Display can be placed wherever it is convenient and visible to the swimmer. It is weather resistant, though reliability is enhanced if it is placed in a somewhat protected location free from frequent or heavy rainfall. The large, bright LED characters and non-glare face are well suited for use in direct sunlight, but visibility is improved when the unit is mounted in shade. The display brightness can be reduced for indoor use.

The display unit should be mounted near the pool where it is easily visible while swimming. The Velcro mounting tape allows you to attach the unit to virtually any surface.

The Swim Pace Display gets its signal and power through a standard phone cord from the controller. Make sure your mounting location allows you to route the phone cord easily from the controller. Additional 4-conductor phone cord and coupling connectors may be purchased at any electronics supply store if more length is needed.

## Display Mounting

Attach one or two lengths of the "loop" portion of the Velcro tape to the back of the case of the display. Once you have selected an appropriate location, attach matching lengths of the "hook" side of the tape to the mounting surface. The Velcro will attach to most surfaces. If attaching to unfinished wood, it is advisable to staple the tape to the wood. Align the Swim Pace Display and press in place.

## Wiring

### WARNING

Disconnect power to the system before doing any work involving electrical equipment.

Clip the phone cord into the receptacle in the bottom of the display. Route the cord to the controller making sure it is well-secured and poses no hazards. If additional phone cord is needed, it is available in a variety of lengths along with the necessary couplers from many electronics and office supply stores. (Be certain to purchase 4-conductor phone cord.) All connectors and couplers must be protected from the elements. Run a continuous length of phone cord if possible. If couplers must be used, they can be placed in junction boxes for protection.

The enclosure of the controller has a knockout in the bottom panel where the phone cord will pass through. (A knockout is a partially-cut hole in the wall of the enclosure.) Remove the knockout with a hammer and punch. Install the water-tight fitting in the hole. (On a Fastlane, also install the reducing bushing in the water-tight fitting.) Feed the phone cord through the water-tight fitting (and bushing, if used) from the outside in. Locate the green receiver board in the controller. Plug the phone cord into the receptacle found on this green circuit board (it is on the lower, left-hand corner of the receiver board). Route the phone cord neatly inside the enclosure and tighten the water-tight fitting (and bushing if applicable) to seal and secure the phone cord. Restore power to the system. The display should not be lighted when the propulsion unit is not running. Once the propulsion unit is started, the display will light up showing the water current flow in 100 yard pace

(default mode). This indicates the water flow equivalent of our standard unit of swimming 100 yards in a traditional lap pool in the indicated amount of time.

## Display Modes and Brightness Adjustment

The Swim Pace Display is capable of displaying swim current speed in several formats. Selection of a format is made by opening the case of the display and setting the DIP switch. Open the case by grasping the front (display) side of the case and carefully squeezing the top and bottom together at each end. This will disengage the latches holding the front and back together. The DIP switch is the component with eight small switches at the top of the circuit board. Switches 3, 4 and 5 control the display mode. Switch 8 controls display brightness. All the other switches must remain in the "Off" position.

The following table shows the switch settings for the different display modes:

Switch Position			Display Mode
3	4	5	
off	off	off	Percent (0-100)
off	on	off	Pace (100 yard)
on	on	off	Pace (100 meter)

The wireless remote control system operates internally in less than 100 discrete steps. While in 100 yard pace mode it will generally not advance in 1 second increments. The Pace modes reflect the elapsed time to cover a distance, so the indicated pace (time) will decrease as speed increases. While the Swim Pace Display is intended to be a highly consistent guide, it should not be considered as accurate as a stop watch.

The brightness of the display can be set by position 8 on the DIP switch. "Off" is low brightness, "On" is high. Typically low brightness is used for indoor locations, high for outdoors. The default setting is the lower brightness level with the number 8 switch in the OFF position.

## DIP Switch Settings

The following table shows the switch settings for the different modes:

Switch No.	ON Function	OFF Function
1	4-20 mA Mode	<b>Voltage Mode</b>
2	4-20 mA Mode	<b>Voltage Mode</b>
3	Percentage (0-100), Steps, <b>100 yard Pace</b> , 100 meter Pace, Raw data (0-999) [see table above]	
4		
5		
6		<b>unused</b>
7		<b>unused</b>
8	High Brightness	<b>Low Brightness</b>

The factory default settings are:

1	2	3	4	5	6	7	8
OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF

If you have any questions regarding the installation or use of your Swim Pace Display, please call Endless Pools Customer Service at 1-800-910-2714.