

OWNER'S MANUAL

START 1000 Mark III

Electronic Starter System

Please read instructions before operating this equipment



ProGrams Sports Systems
5064 Mink Livsey Road
Snellville GA 30039
(800) SOS-SWIM
www.sos-swim.com

TECHNICAL SPECIFICATIONS

OUTPUT POWER	Loudspeaker rated 6W / 10W maximum
POWER SOURCE	Eight (8) AA batteries (to supply 12 V DC)
SIGNAL	Simultaneous start pulse & 360° LED strobe flash
BATTERY LIFE	8 hours (estimated time for Alkaline batteries)
AUDIBLE RANGE	Voice: 250 meters (over 800 feet)
START PULSE SOUND LEVEL	Acoustic signal rated 106 dB @ 10 feet
SPEAKER HORN	Neodymium magnet / Polyimide diaphragm
OPERATING TEMPERATURE	Ranges from -10°C to +40°C (14°F to 104°F)
MATERIAL	High durability ABS resin (Grey / Light Grey color)
DIMENSIONS (L x W x H)	265 x 160 x 325 millimeters (10½ x 6¼ x 12¾ inches)
WEIGHTS (Mark III & Batteries)	750 grams (1 lb 10½ oz) & 195 grams (7 oz)

SYSTEM COMPONENTS

Handheld loudspeaker

- Power output: 6W Rated / 10W Max.
- Range: 250 meters (over 800 feet).
- Powered by 8 AA batteries (~ 8 hrs operating time).
- Lightweight, high-durability ABS resin construction.
- Wide frequency range amplifier for enhanced audio quality.
- Speaker incorporates neodymium magnet and polyimide diaphragm for efficient operation and high sound quality.
- Anti-bacterial treatment on mouthpiece, microphone, and handle improves hygiene and safety during use.

Electronic Beep

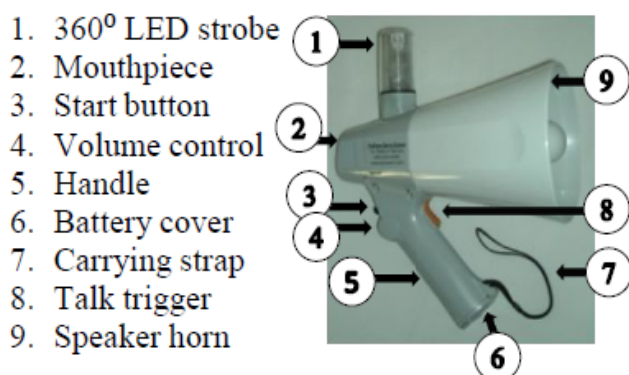
- Loud starting tone generated by powerful siren-driver circuit board from a modified commercial fire alarm system.
- Rated sound-level output at 10 feet: 106dB.

Side-emitting LED Strobe

- Ultra-bright 360° LED (light emitting diode) optical strobe used in this system designed, tested, and fabricated in our own manufacturing facility.
- Brilliant white flash from a state-of-the-art LED provides the visible starting signal.
- Powerful side-emitting LED diode used in the optical strobe is mounted inside a cylindrical light-diffusing protective lens for eye safety.

START 1000 Mark III combines a powerful bullhorn to allow a starter/referee to be heard above the background noise during a meet and an electronic starter module with simultaneous starting tone and strobe light to replace the starting pistol commonly used to start each event. This unit will help start races more efficiently. It eliminates delays caused by misfires, and it also eliminates the stress and anxiety that younger athletes may experience when a starting pistol is about to be fired. This system is designed as an aid for the starter/referee and is not intended to take the place of a public address system.

PARTS AND FUNCTIONS



USING THE BULLHORN

To use the Mark III as a bullhorn to speak to the athletes before an event, squeeze the talk trigger (power turns ON while the trigger is held down – release to turn the power OFF). Speak into the internal microphone (your mouth should be located about ½” away from the mouthpiece). Rotate the volume control to the right to increase the output volume. Adjust volume to an appropriate level that does not generate feedback when holding down the talk switch. *Note that the output volume of the start pulse is fixed and is not affected by adjusting the voice volume control.*

USING THE ELECTRONIC STARTER

Hold the Mark III by grasping the handle with one hand, placing your index finger over the talk trigger, and cradling the side of the horn with your other hand to hold it steady.

Point the horn horizontally toward the swimmers so the electronic “beep” is heard when the start button is pressed. The LED (light-emitting diode) strobe stalk will then be pointed in the vertical direction and the visible flash (synchronized with the sound pulse) will illuminate a full 360-degree horizontal area in such a way that the light beam expands with a vertical beamwidth of about 25° as it is emitted radially from the strobe. *If the starter-referee does not orient the axis of the strobe to within about 10 to 15 degrees from the vertical, some of the athletes or timers might not be able to see the flash of light emitted by the strobe.* The full 360° viewing angle handles special cases such as meets with 25-yard events for young swimmers in which the starter-referee points the horn toward swimmers at one end of the pool while timers at the other end also need to see the flash to start their stopwatches.

Because the speed of sound is so much slower than the speed of light, advise the swimmers and timers with stopwatches to use the flash from the LED strobe to determine the instant that the race starts. The time required to hear the “beep” gets noticeably longer as distance from the source increases. *(Under typical conditions, a sound pulse does not reach a swimmer six lanes away from the starter/referee until about 0.04 seconds after it has already been heard by the swimmer in the lane right next to the source of sound.)*

The flash from the optical strobe, which is manufactured exclusively for START 1000 systems, provides outstanding visibility for indoor facilities and for all outdoor conditions. The powerful state-of-art side-emitting LED diode used in this strobe is mounted inside a cylindrical light-diffusing protective lens for eye safety.

STARTING AN EVENT

To start each race, squeeze the trigger switch with your index finger and speak into the mouthpiece to announce the beginning of the race to your athletes. *(For example: “Get on your mark, get set, . . .”; then press the start button).*

There are at least two ways to access the start switch. If you are holding the starter with both hands, press the start button with the thumb of the

hand that you are using to steady the unit. Alternately, some starter-referees prefer to use one of their hands to hold a heat sheet, clipboard, or other items. In that case, with a little practice, you can hold the Mark III with the other hand by grasping the handle, putting your index finger over the talk trigger, and placing your thumb over the start button. For each case, pushing the start button with your thumb (making sure that the vertical axis still points upward) causes the unit to emit a loud beep and activate the LED strobe simultaneously. *Both the strobe and the electronic tone will remain activated until you release the start button. It is recommended that you push the start button and then release it as soon as you hear the beep.* Normal human reaction times for releasing the button will provide an appropriate pulse length for both the strobe and the starting tone.



To indicate a false start, press the start button repeatedly at a rapid rate until all the athletes recognize that the false start was called.

⚠ CAUTION

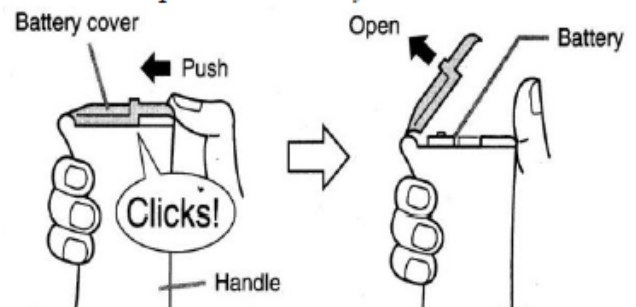
*This device is designed to be operated outdoors or in large open areas. The sound level for the starting pulse is high. **DO NOT** hold the horn near anyone's ears. Point the megaphone toward the ground when conducting operational tests.*

*In addition, the ultra-bright side-emitting LED diodes used in the optical strobe for this system are rated as IEC825 Class 2 lasers. **DO NOT** remove the protective lens and light-diffusing cylinder and stare at the LEDs when they are pulsed. Any attempt to twist off the protective lens on the optical strobe will void the warranty.*

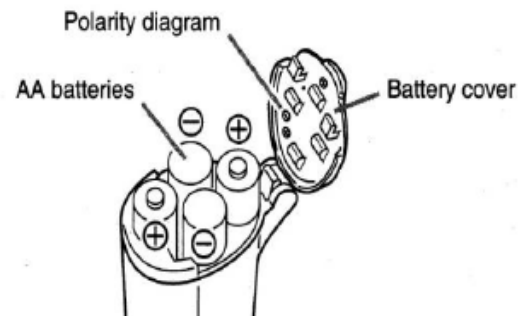
INSTALLING BATTERIES

Eight (8) AA batteries power the system. *If the speaker sound runs down, replace the batteries.* Always keep a spare battery pack with the system to be sure that you have batteries available to run your meet. We recommend using alkaline batteries for the best combination of extended life and cost. A complimentary 8-pack of AA alkaline batteries is included with each new Mark III starter. The battery compartment is accessed from the bottom of the bullhorn handle. Follow these three steps to install batteries:

STEP 1: *Open the battery cover as shown.*



STEP 2: *Insert eight AA batteries, referring to the polarity diagram on the inside of the battery cover.*



STEP 3: *Press the battery cover down and slide in direction of arrow until it clicks to lock, as shown below.*

