



Timing Light (TL) USERS MANUAL



Playmate

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Introduction

What factors make some individuals superior in skills during sporting events? This question has been asked by many coaches/trainers for as long as civilizations have existed.

Sports Split Step does not address all factors, but it does address the issue of timing a player's movement with the delivery of a ball from the ball machine. Learning 'timed' movements at an early age can significantly increase the attainable skill level of most athletes.

Our company provides teaching tools which can influence our youth at an age when habits are more easily molded. Using our simple tools allows a skilled coach to begin physical training that utilizes 'timed' movements rather than just movements. Learning to move at specific times that relate to an opponent's action can improve what is called the sensory-motor responses. Learning these basics at a young age allows the growing athlete to develop skills that allow them to perform better at an older age. These skills will maximize the starting acceleration with resulting speeds that allow quicker positioning of the individual or athlete, and thus better control of muscle groups involved in executing a stroke, a kick, a catch, a toss or other complex movements. A document on our website (www.Sports-Split-Step.com) called 'The Fundamental Sequence of Movement' provides an in-depth look at the movement called the 'split step'.



When directing our attention to the game of tennis, one might ask, "What are the fundamental movements of professional tennis players?"

Professional tennis players will perform the same basic movements on each and every ball hit by the offensive player (even if they cannot make it to the CENTER of possible returns) before the offensive player hits the ball. The defensive player is at a disadvantage when not being in the perfect position, but their best reaction is to execute the following moves.

- Shortly before the offensive player hits the tennis ball, the defensive player or the player about to have the ball land in their court will have CENTERED or moved to the most likely spot where the opponent's ball will land.
- As the offensive player's begins their swing to contact the ball, the defensive player will begin to load their legs for performing a HOP into the air.
- Ball contact by the offensive player is an important time and the defensive player's goal is to be at the TOP of their HOP when the ball is struck.
- Seeing and reading the direction of the ball coming off the offensive player's racket is a most important skill. The

defensive player's goal is to determine the direction as they begin to descend from the TOP of the HOP to the tennis court. Determining the direction ASAP is crucial for insuring the defensive player the best possible position for the opponent's shot.

- The defensive player will try and land on the foot that is away from the incoming ball (especially for the very wide balls) so that gravity can help them accelerate as quickly as possible in the proper direction.
- After the defensive player gets near the hitting position they begin taking shorter steps in preparation for their shot. Once the defensive player hits the ball they can then recover from their shot and begin centering for the opponent's next shot.

The Ball Machine [Timing Light](#) (BMTL) emulates the timing of athletes in the sport of tennis. Furthermore it provides a platform by which the player can perform what Daniel Coyle in his New York Times bestselling book, '[The Talent Code](#)', describes as 'Deep Training'. Deep Training is where an athlete executes sport specific movements at controlled speeds and in a repetitive fashion, so that the athlete can perform exactly what is desired. In so doing the sensory-motor pathways for remembering are greatly enhanced as they increase the speed and add more difficult movements.

- Provides proper timing for the split step.
- Auto Mode will begin after 30 seconds.
- The Auto Move can be used with 'Hand Fed Balls'.
- Remote starting of ball machine will override the auto mode.
- TL will accelerate the training and skill building of an athlete.
- Provides progressive training of the Split Step, an important aspect in learning.
- Promotes better court or field coverage.

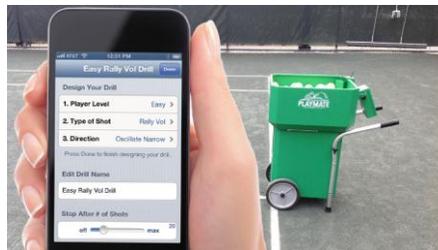
- Develops movements timed to an opponent actions.
- Builds aerobic capacity while executing a timed stroke.
- Can be used with players before, during or after the introduction of strokes.
- Stroke production and technique can also be practiced without having the skills required for hitting a real ball.
- Easy transition between 'shadowing', hitting Hand Fed balls, hitting machine fed balls and then hitting real live balls (opponent).
- Can be used on court, in your driveway, or any open area.
- Allows players to train in large groups, either on a court or inside on rainy days.

Features of the Playmate Chameleon and Timing Light

This ball machine provides the greatest capability of any ball machine for allowing the coach to challenge the player.

1. An Auto Mode by which the coach can provide 'shadowing drill' (i.e. drills without balls) for the players.
2. When in the Auto Mode the player can execute their split step to the Timing Light, while the coach Hand Feeds balls.
3. Hand Feeding balls is a great way to transition between 'shadowing' and hitting balls from the ball machine.
4. The Normal Mode of operation for the Timing Light during which a ball will be delivered that is synchronized with a set of RED LEDs.
5. Normal Mode will override the Auto Mode when the ball machine remote control starts the ball machine.
6. There is BEEPER that beeps only during the Auto Mode of operation; beeps occur at start of the HOP and at the HIT time for the imaginary ball.
7. Patterns of play with up to 7 different shots where-in each shot can have up to 5 selectable parameters or characteristics.

8. Coaches can select top spin, under spin, side spin (right or left), heights, speeds, delays, directions and whether or not to have RANDOM sequences or specific patterns of play.
- Setting up patterns of play with 'delays' of different lengths on each of the shots in the sequence provides one of the best drills for advanced players.
 - However, when adding different delays the player cannot get into the rhythm of a CONSTANT FEED RATE because it doesn't exist.
 - This uneven feed rate would make the ball machine useless in developing the split step as the player cannot anticipate when the ball would be delivered.
 - However, with a Timing Light we can have different delays as the player knows ahead of time when the ball is about to be delivered even though the feed rate varies.
 - In tennis matches, the balls from your opponent are never hit at a constant feed rate; this is one of the reasons why the Timing Light is a must when using various ball delays available on Playmate ball machines.
9. Memorization and storage of drill setups for quick recall during training sessions.



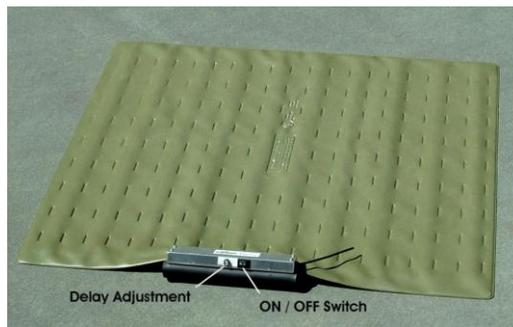
iPLAYMATE

10. Serve Return practice with the Playmate Lift and Timing Light provides valuable timing to a most critical shot.



Playmate & Serve Lift

11. Playmate's Serve & Volley PAD provides automatic synchronization of the ball delivery and Timing Light LED sequence; the best tool for doubles practices.



Playmate PAD

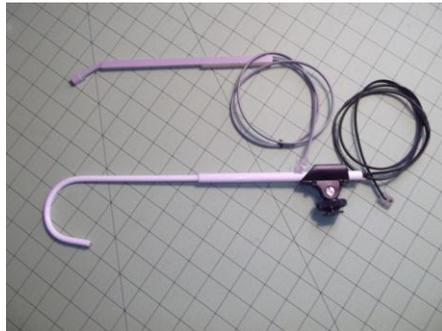
12. Consider for a moment coaches that are using the Playmate & PAD for teaching the serve & volley:
- A player will start by standing on the PAD which will automatically activate the ball machine after the player goes thru a normal service motion and steps off the PAD.
 - Any sequence of multiple shots can be initiated for emulating an actual serve/return rally or particular combinations or sequences of ground strokes.
 - Once the sequence of shots is complete the ball machine stops delivering balls until the next player activates the PAD, thus providing time for coach/student feedback.

- The timing of the delivered ball can be adjusted at the Remote PAD, so that for various serve speeds the server can advance to different locations relative to the net.
 - Doubles teams can practice serving and playing out points with multiple RANDOM shots and/or ball directions that can be RANDOM.
 - The Remote PAD can be used with or without the Timing Light to learn the most difficult of the Split-Steps, that of timing the split-step after serving.
 - All ball machine functions are still available, for example shot delay, feed rate, speed, spin, height, direction and RANDOM.
13. The PAD and LIFT can be used for other training purposes:
- Players can practice the Return of Serve using the PAD and LIFT to start the ball machine 'serve' by stepping off the PAD. One or more service balls can be sequenced so that FH, BH and serves to the body can be learned.
 - Two players can practice returning serve and poaching the return of serve where the player at the net can initiate a 'ball machine serve' by stepping off the Remote PAD.
 - Similar sequences can be initiated by the coach for Ground Strokes to either the Left or Right, or Approach shots, Volleys and even Over Heads.

Additional Add-On Options

The Video Option can be purchased (see pricing sheet) and will allow the light from a small RED LED to be superimposed onto the video recording of players at critical times during the split step:

- Just as the vertical RED LEDs start sequencing downward
- At the HOP time (i.e. all 8 RED LEDs are ON)
- And at HIT time when in the Auto Mode
- When the Video Option is used in the Auto Mode (i.e. shadowing) the coach and player to see exactly (within 1 video frame or 33 mSec) when the player's HOP and HIT actually occurred relative to when they should have occurred. Call for more explanation.



The Extension Cable Option can be purchased (see pricing sheet) and will allow the video camera to be located up to 100 feet from where the **Ball Machine Timing Light** is located.



The small couplers allow the interconnection of the cable between the Timing Light and Video Option.



Limited 3 Year Warranty

Sports Split Step provides product purchasers with a limited 3 year warranty for all products.

Limited 3 Year Warranty Clauses

1. In order to be eligible for Sports Split Step Limited 3 Year Warranty, product registration must be completed by the purchaser. The warranty of the purchased product is activated from the completion date of the product registration at Sports Split Step or from an authorized distributor. Sports Split Step reserves the right to determine the eligibility of the product registration if the registration process is delayed by the purchaser for more than three months after the original purchase date. Satisfactory proof is required to claim the warranty; for example, the invoice from the initial purchase.
2. The Limited 3 Year Warranty is for the original purchaser only. In the event of a sale or product transfer by the original purchaser to a third party, the warranty period shall be as described in the “After the Limited 3 Year Warranty Period”.
3. If the product is operated under a normal operating environment during the warranty period and a malfunction is not caused by external or internal self-assembly, Sports Split Step reserves the right to exchange components, repair, or substitute the appropriate types of products at its discretion.
4. All replaced parts will be brand new parts. These can include but are not limited to: new components, modules, or substitute products for repairing.
5. When the product has exceeded the warranty period, warranty clauses, or is otherwise inapplicable to warranty (please refer to the “After the Limited 3 Year Warranty” section), maintenance service, replacement, shipment, and any other related charges might occur.

Other Exception Clauses

Sports Split Step guarantees its products against defects in materials and workmanship under limited conditions. However, under the following exceptions, Sports Split Step has no liability to provide warranty services for the repair or maintenance without charge.

1. Damages caused by accidental events, damages due to the human force or self-assembly, damages caused by negligence of maintenance or modification behaviors without authorized technical support.
2. Damages resulting from any natural disaster.
3. The appearance of a product due to dust, dirt and age, normal wear of mechanical components and accessories outside of the product itself.
4. Purchasers are responsible to pack the repair product in good condition and ship it to the original distributor/representative. Shipping charges must be paid by the sender.

After the Limited 3 Year Warranty Period

If the received products have exceeded the warranty time, Sports Split Step will still provide the related repair and or maintenance services. However, the owners of the products are responsible for the repair and or maintenance charges, the return shipping charges and any additional costs.