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INTRODUCTION

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

The Split Step Coach does not address all the factors, but it does address the issue of timed movement; movement has been and is a core factor that can help dedicated fencers be the best they can be.

SSC trains to maximize the starting acceleration with resulting speeds that allow quicker positioning of the fencer, and thus better control of muscle groups involved in executing movements on the Strip.

Directing our attention to the art of fencing, one might ask, “What are the fundamental movements of a professional fencer?”

Professional fencers will perform many of the same basic movements on each and every attack or retreat. Both the offensive and defensive fencer are at a disadvantage when not utilizing the Balestra move (both feet off the strip) to make decisions. As the offensive fencer starts advancing or the defensive fencer retreating, the Balestra move provides an instance in time where-in the fencers ‘read the cues’ on their opponent and land on either the front or rear foot to execute either a lunge/thrust or a parry/retreat.

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**Balestra 8 (Decision Time)**

**Yuki** - land on front or rear foot?

Cues: Opponent's foil is low, weight is centered, foil arm retracted, attack is likely

^Off the Pate^
Both Fencers are just becoming airborne with either foot (front or back) ready to land and change their direction depending on the action or lack of action of their opponent. See this annotated video of Ota vs Massiaias at the Moscow 2015 World Foil Finals.

1. Shortly before the offensive fencer makes an attack & thrust, the defensive fencer will try to get into best position to counter a potential attack and be in the Balestra position (both feet off the ground).
2. As the offensive fencer begins their move to the Lunge/Thrust position, the defensive fencer will begin to load their legs for performing a HOP into the air (Balestra).
3. Lunge/Thrust by the offensive fencer is an important time and the defensive fencer's goal is to be at the top of their Balestra, just before the Lunge is executed.
4. Reading the direction of the Thrust coming from the offensive fencer's body, arm and foil is a most important skill and the defensive fencer's goal is to determine the direction as they begin to descend from the TOP of the HOP. Timing is crucial for insuring the defensive fencer the best possible Parry or counter movement based on the opponent's Thrust.
5. The defensive fencer will try (with some exceptions) to land on the front foot that is closest to the incoming Lunge so that gravity can help them accelerate backwards as quickly as possible and prepare for a Parry.
6. After the defensive fencer executes the Parry and Retreats they can counterattack by taking shorter steps in preparation for another feint followed by a Balestra and a Lunge/Thrust.
7. Executing the Counterattack can be enhanced by reading the reaction of the defender to one's feint and then the attacker landing of the rear foot to capitalize on the Impulse Force along with the Stretch-Shortening Cycle Forces to attack the target zone.

Offensive moves by the fencer can be trained using the Split Step Coach (SSC) by Lunging/Thrusting in a Line directed by the directional LEDs. For instance, if the right Directional LED (DL) comes ON, the offensive Lunge & Thrust should be towards the Inside-Center (right handed opponent) target area.

Defensive moves by the fencer should train using the SSC by Parrying an attack from a Line dictated by the directional LEDs. For instance, if the right Directional LED (DL) comes ON, the defensive Parry and Retreat should be to protect from an Attack from the Inside-Center (right handed opponent).
<table>
<thead>
<tr>
<th>Offensive Fencer</th>
<th>Defensive Fencer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inside Middle Attack</td>
<td>Parry for this type of Attack</td>
</tr>
</tbody>
</table>

### Various Parrys
- Prime
- Seconde
- Tierce
- Quarte
- Quinte
- Sixte
- Septime
- Octave
- Neuvieme

### Various Attacks
- Inside High
- Inside Middle
- Inside Low
- Outside High
- Outside Middle
- Outside Low
- Head
- Hand
- Torso
Features & Differences between the Split Step Coach Series

COACH 1
Top of the line tool for indoor and outdoor training.
Features include:
1. Large Panel Display,
2. Sixteen Progressive-skill Drills
3. Three levels of difficulty
4. Remote Control
5. Battery operation with charger
6. Advanced Color Feature (call for information)
7. iPad Option (call for information)
8. Video Option & Mount (call for information)

COACH 2
Middle of the line tool for indoor and various outdoor lighting conditions.
Features include:
1. Ten Progressive-skill Drills
2. Three levels of difficulty
3. Remote Control
4. Battery operation with charger
5. Advanced Color Feature (call for information)
6. Additional Five Drill Option (call for information)
7. Camera Mount Option (call for information)

COACH 3
Economical tool for inside training.
Features include:
1. Ten Progressive-skill Drills
2. Three levels of difficulty
3. Manual Pushbutton Control
4. Battery operation with charger
5. Camera Mount Option (call for information)

SSC products emulate the movements and timing of fencers in modern day competition. Furthermore it provides a platform by which the fencer can perform what Daniel Coyle in his New York Times bestselling book, 'The Talent Code', describes as 'Deep Training'. Deep Training is where a fencer executes repetitively sport specific movements at selectable speeds, so that the fencer can train at the maximum level without erroring.
In so doing the sensory-motor pathways for remembering are greatly enhanced as the coach exposes the fencer with controlled increases in speed and difficulty.

**Training Advantages**

1. Accelerates the training and skill building of a fencer(s).
2. Enhances the training of the Balestra, and the decision making process (Sensory-Motor Pathway training) maybe the most important aspect in fencing.
3. Promotes better strip coverage.
4. Develops movements timed to the opponent's Lunge/Thrust or Parry/Retreat movements.
5. Builds aerobic capacity while executing multiple controlled repetitions.
6. Can be used with fencers before, during or after the introduction of Attacks or Retreats.
7. Lunge/Thrust production and technique can also be practiced without all the skills required for combating a real opponent.
8. Can be used on strip, in the gym, in your driveway, or any open area.
9. Allows the fencer to train with the same drills at various speeds so that accuracy in execution can be assured before increasing difficulty.
10. The ADVANCED drills (with Anticipation cues & Adv Color Feature) allow the fencer to anticipate the first move and then anticipate the execution of a Counter Attack.
11. Precise measurements of a fencer can be recorded with a video camera for evaluating a fencer's progress within the 3 different levels of difficulty and the various drills.

**Fundamental movements of professional fencers**

The following table describes in more detail the possible movements between Fencers during a competition. The fencing data 1) Balestra Moves (both feet off the ground) 2) Retreat Moves (rear foot off & front foot on ground) 3) Advance Moves (front foot off & rear foot on ground) were obtained from a video of a match between Ota vs Meinhardt Moscow 2015 world Championship men's foil semi-final.

<table>
<thead>
<tr>
<th>Bout broken down into Balestras, Retreats &amp; Advances</th>
<th>Yuki Ota</th>
<th>Gerek Meinhardt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Moves for each Fencer</td>
<td>67</td>
<td>43</td>
</tr>
<tr>
<td>% of Balestra Moves</td>
<td>34%</td>
<td>20%</td>
</tr>
<tr>
<td>% of Balestra Retreat</td>
<td>28%</td>
<td>33%</td>
</tr>
<tr>
<td>% of Balestra Advance</td>
<td>39%</td>
<td>47%</td>
</tr>
<tr>
<td>Average Balestra Time</td>
<td>95 mSec</td>
<td>73 mSec</td>
</tr>
<tr>
<td>Maximum Balestra Time</td>
<td>200 mSec</td>
<td>100 mSec</td>
</tr>
<tr>
<td>Minimum Balestra Time</td>
<td>33 mSec</td>
<td>33 mSec</td>
</tr>
</tbody>
</table>
Yuki Ota has superior movement skills as compared to Gerek Meinhardt and that can be verified by comparing the data in the tables. What is generally not emphasized when training fencers is what we refer to as the Balestra; this is the time that both feet are off the ground. We will now analyze and correlate these bout movements to the events that occur when working with the Split Step Coach.

1. The Split Step Coach is built around the movements indicated in the above table. On the front surface of the SSC, there is a vertical column of 5 to 8 RED LEDs that will begin to sequence in a downward direction as the defensive fencer recovers & moves to the en garde position.
2. At the end of the downward sequence (all RED LEDs are ON), the RED LEDs turn OFF as fencer-1 starts to execute the Balestra (SSC emits an audible beep).
3. Sometime between the end of the downward sequence and the 'Top of the Balestra' one or more of the 4 Directional LEDs will turn ON to indicate which of the 8 directions the fencer will Retreat & Parry or Lunge & Thrust.
4. The Directional LEDs will remain ON as fencer-1 lands on the ground, then the RED LEDs begin to sequence in an upward direction.
5. As the fencer moves to the Lunge/Thrust or the Retreat/Parry position the RED LEDs will continue to ripple upwards.
6. As the upward sequence continues the fencer should be preparing for their Lunge/Thrust or Parry/Retreat so that as the top RED LED turns ON, the fencer will be contacting the imaginary opponent (i.e. the HIT or Parry); a 2nd audible beep will be heard at this time.
7. Once the opponent is HIT (or for a defensive fencer, the Parry is made) all RED and Directional LEDs will turn OFF and will remain OFF as the fencers Recovers or prepares for the next move.
8. We have now arrived at the en garde position where-in we began preparing for the next Balestra, in other words as the RED LED's start their downward sequence.
9. An App can be purchased for either Android or Apple mobile devices that will help allow the fencer to learn the various movements.
**PARRYS** (with voice pronunciations)

**Prime** Parry #1; blade down and to the inside, wrist pronated. The point is significantly lower than the hand. Covers the inside low-line (this is a rare sabre parry).

**Seconde** Parry #2; blade down and to the outside, wrist pronated. The point is significantly lower than the hand. Covers the outside low line in sabre, replacing octave.

**Tierce** Parry #3; blade up and to the outside, wrist pronated. The point is significantly higher than the hand. Covers the outside high line. This is the basic *en garde* position in sabre.

**Quarte** Parry #4; blade up and to the inside, wrist supinated. The point is higher than the hand. Covers the inside high line.

**Quinte** Parry #5; blade up and to the inside, wrist pronated. The point is higher than the hand. This parry, more than any other, is subject to different interpretations in different schools (in foil and *épée*). In foil and *épée*, this parry generally covers the inside high line, since the pronated wrist can push further down than the supinated wrist (in Quarte).

**Sixte** Parry #6; blade up and to the outside, wrist supinated. The point is higher than the hand. Covers the outside high line. This is generally the parry taught as the basic *en garde* position in foil and *épée*.

**Septime** Parry #7; blade down and to the inside, wrist supinated. The point is lower than the hand. Covers the inside low line.

**Octave** Parry #8; blade down and to the outside, wrist supinated. The point is lower than the hand. Covers the outside low line.

**Neuvieme** Parry #9; blade behind the back, pointing down; alternatively, similar to elevated sixte. Originally used in sabre, to defend the back against a passing or overtaking opponent. Covers the outside line on the back.
1. Four Line Attacks

- Inside High
- Inside Middle
- Inside Low

2. Five Line Attacks

- Outside High
- Outside Middle
- Outside Low

3. Middle Attacks

- Head
- Hand
- Torso
Setting up the COACH 2 Hardware

1. Unpack all of the ordered components: COACH 2 display panel, remote Hand Held Transmitter (HHT), Video Option (if ordered).
2. You might want to ‘top off’ the battery with an overnight charge before teaching a lesson; we ship with a fully charged battery.
3. Mount the Coach 2 display panel by mounting it on a medium/large sized tripod; typically 36” to 48” above the strip makes for the most realistic viewing.
4. Coach 2 can be elevated by extending the tripod or ladder, or hanging it from a tall balcony, thus allowing easy viewing for large groups. Coach 1 may be desirable for larger distances or larger groups; groups of up to 20 in number have been trained at one time for sports such as football & soccer using the tripod.
5. The panel’s front surface should be aligned perpendicular to the fencers so that easy viewing of the LEDs; multiple fencers can be positioned at 20 to 40 feet from the Coach 2 and still have proper viewing.
6. Power up the unit by using the switch on the rear of the chassis.
7. The default conditions after powering up are
Using the Remotes

Basic Key Functions
1. Button 1 will STOP (PAUSE) a drill, and then re-START at the beginning.
2. Button 2 will select the lowest LEVEL of difficulty (Beginner).
3. Button 3 will select the next LEVEL of difficulty (Intermediate).
4. Button 4 will select the highest LEVEL of difficulty (Advanced).
5. Button 5 will sequence to the next DRILL.
6. Button 6 will cycle the buzzer loudness thru 4 different levels, including MUTE.
7. Button 7 will cycle the Directional LED brightness thru 4 different levels.
8. Button 8 will switch between the 5 REACTION Drills, FENCING Basic Drills and FENCING Advanced Drills.
9. Button 1 (press & release) followed by Button 8 (press & release) will toggle the Anticipation mode of operation (default mode is NO Anticipation).

**General Operations**

1. Remote button presses of 1/2 to 1 second duration will select or change the mode of operation; when button 5 is held down continuously the effect will simulate multiple button presses with ~1 second intervals while the drills sequence.

2. The user can stop the startup automatic sequencing of drills by pressing Button 5 on the Hand Held Transmitter (HHT) one time, which will select Drill #1 (TOP RED LED will flash) while keeping all other setups the same.

3. Once Button 5 is pressed, Drill #1 will run continuously, until Button 1 (PAUSE) is pressed or another drill is selected by pressing Button 5.

4. The DRILL # selection can continue in this fashion thru DRILL #5 at which time another push would activate the automatic sequencing mode.

5. This sequence mode will automatically execute a Drill and then sequence to the next Drill (#1, #2, #3, #4, #5) and then repeat; this automatic sequencing mode is a good warm up mode for fencers.

6. Again, to exit the automatic sequencing mode the user would press Button 5 one more time and Drill #1 will begin executing while remaining at the same LEVEL of difficulty.

7. All drill packages come in two flavors, with or without Anticipation RED LEDs, i.e. anticipation allows the RED LEDs to simulate an opponent’s movements so that the fencer can respond appropriately.

8. You can select the various drill packages:
   a. REACTION => Default setup with no Anticipation
   b. FENCING Basic => Press Button 8 one time
   c. FENCING Advanced => Press Button 8 two times

9. Pressing button 8 will change the drill group and when the Status is activated the Directional LEDs will change to different colors depending on the Group:
   a. REACTION => Green DLs
   b. FENCING Basic => Yellow DLs
   c. FENCING Advanced => Red DLs
10. Selecting the RANDOM Attack-Retreat mode of operation (Pressing Button 1 followed by button 6) will allow the fencer to add another dimension of complexity for learning how to respond to a Random selection of ATTACK or RETREAT.
   a. RED DLs => Opponent Attacks
   b. YELLOW DLs => Conversation or Coach Defined Movement
   c. GRN balls => You Attack
11. When in the RANDOM Attack-Retreat mode the DLs will still indicate the Target and Parry Zones; this mode is always Random and cannot be changed.
12. All Group Drills for all 3 levels of difficulty (Beginner, Intermediate & Advanced) and are selectable between RANDOM or LINEAR Drills.
13. To toggle the RANDOM/LINEAR move press button 1 (Pause Button) then button 6.
14. The LEVELS of Drills vary in difficulty
   a. BEGINNER: Lowest difficulty (slower tempo moves)
   b. INTERMEDIATE: moderate difficulty (faster tempo moves)
   c. ADVANCED: most difficult (fastest tempo moves)

Recognizing which DRILL, LEVEL and Option are active
1. Powering UP defaults to REACTION Mode with NO Anticipation
2. BEGINNER => bottom Directional LED is ON
3. INTERMEDIATE => bottom & right Directional LEDs are ON
4. ADVANCED => bottom, right & top Directional LEDs are ON
5. DRILL #1 => top RED LED is ON
6. DRILL #2 => top 2 RED LEDs are ON
7. DRILL #3 thru DRILL #5 turn on a corresponding number of RED LEDs
8. Left Directional LED will be turned ON when different Drill Groups are selected, Green=>Reaction, Yellow=>Fencing Basic, Red=>Fencing Advanced
9. RANDOM => When selected the Left Directional LED will BLINK twice & BEEPER will beep 3 times each time a button is pressed.
10. COLOR MODE => Directional LEDs will Randomly be RED, YELLOW or GREEN
Quick Guide for the FENCING COACH 2

REACTION DRILLS - GREEN
1. BOUNDS
2. SHUFFLE
3. SPRINTS
4. QUICK HIPS
5. SCRAMBLE (Running)

FENCING Basic DRILLS - YELLOW
1. Balestra with Lunge/Thrust or Retreat/Parry Outside High
2. Balestra with Lunge/Thrust or Retreat/Parry Inside High
3. Balestra with Lunge/Thrust or Retreat/Parry Outside Low
4. Balestra with Lunge/Thrust or Retreat/Parry Inside Low
5. Balestra with landing and moving to the Outside High, Inside Low, Inside High, Outside Low, Outside Mid, Inside Mid, Hand

FENCING Advanced Drills - RED
1. 9 Alternating Inside Mid & Outside Mid
2. 1 Inside/Outside Mid, 1 Head, 6 Inside/Outside Mid (fast)
3. 1 Inside/Outside Mid, 1 Head, 3 Inside/Outside Mid (fast), 4 Torso (slow)
4. 7 Inside/Outside Mid, 1 Head, 2 Inside/Outside Mid (slow), Torso (slow), 2 Inside/Outside Mid (fast)
5. 7 Inside/Outside Mid, 1 Head, 3 Inside/Outside Mid (fast), 2 Torso (slow)
Detailed Description of the 3 Packages of Drills

REACTION DRILLS (BEG, INT & ADV)

1. **Drill #1** BOUNDS (one quick step) =>
   a. When the left DIRECTIONAL LED comes ON, **step** as quickly as possible 3’ to 4’ to the left until the beep is heard, then **step** as quickly as possible to the starting position
   b. Then when the right DIRECTIONAL LED comes ON, **step** as quickly as possible 3’ to 4’ to the RIGHT until the beep is heard, then **step** as quickly as possible to the starting position
   c. Then when BOTH the right and left DIRECTIONAL LED come ON do a vertical HOP and remain at starting position ready for next lateral move
   d. Repeat steps a, b, & c 12 times

2. **Drill #2** SHUFFLE (side stepping) =>
   a. When the left DIRECTIONAL LED comes ON, **shuffle** as quickly as possible to the left until the beep occurs, then **shuffle** as quickly as possible back to the starting position
   b. When the right DIRECTIONAL LED comes ON, **shuffle** as quickly as possible to the right until the beep occurs, then **shuffle** back to the starting position
   c. Repeat steps a, b, & c 8 times

3. **Drill #3** SPRINTS (running) =>
   a. When the left DIRECTIONAL LED comes ON, **run** as quickly as possible to the left until the beep occurs, then **jog** back to the starting position (about 5 sec to get back)
   b. When the right DIRECTIONAL LED comes ON, **run** as quickly as possible to the right until the beep occurs, then **jog** back to the starting position (about 5 sec to get back)
   c. Then when BOTH the top DIRECTIONAL LED comes ON, **run** as quickly as possible straight ahead until the beep occurs, then **jog** back to the starting position (about 5 sec to get back)
   d. Repeat steps a, b, & c 8 times

4. **Drill #4** QUICK HIPS (180’s) =>
   a. When the left DIRECTIONAL LED comes ON, **spin** to your left (your back will be to the SSC), immediately reverse directions and **spin** back to the starting position and wait for the next direction
b. When the right DIRECTIONAL LED comes ON, spin to your right (your back will be to the SSC), immediately reverse directions and spin back to the starting position and wait for the next direction.

c. Repeat steps a, b, & c 8 times.

5. **Drill #5** SCRAMBLE (running) =>

   a. When the left DIRECTIONAL LED comes ON, run as quickly as possible to the left until the beep occurs, then run back to the starting position.

   b. When the right DIRECTIONAL LED comes ON, run as quickly as possible to the right until the beep occurs, then run back to the starting position.

   c. Then when BOTH the top DIRECTIONAL LED comes ON, run as quickly as possible straight ahead until the beep occurs, then run back to the starting position.

   d. Repeat steps a, b, & c 8 times.

---

**FENCING Basic DRILLS** *(BEG, INT & ADV)*

1. **Drill #1** Balestra move (Vertical RED LEDs only)

   a. As the vertical RED LEDs (VLED) begins to sequence downward the Offensive or Defensive fencer anticipates when to start loading their legs from a Recovery move.

   ![ Diagram of vertical RED LEDs sequence ]

   b. Fully loaded legs (into the En garde position) should occur just before the bottom VLED (5th) comes ON so that a vertical hop can commence immediately when the buzzer beeps (VLEDs go OFF).

   c. The fencer will rise into the air to the Top of the Hop (TOH) and as they descend, the coach can start by having them land on both feet, then on the back foot (for Attacking) and then front foot (for Retreating).
d. After landing the coach can have the fencer learn to time a Forward (Attack & Thrust) or Backward (Parry & Retreat) movement during the UPWARD vertically sequencing VLEDs.

![Advance, Lunge & Thrust Sequence or Retreat & Parry Sequence]

e. When Attacking (moving Forward) the Offensive fencer should time their Thrust & Hit just as the buzzer sounds (VLEDs go OFF).

f. When Retreating (moving Backward) the Defensive fencer should time their reaching the next En garde position (loaded legs) as the buzzer sounds (VLEDs go OFF).

g. Drill repeats steps a, b, c, and d 8 times

2. **Drill #2** BALESTRA & Target moves - Advance, Lunge and Thrust movement (or Retreat and Parry) towards the Outside Middle Zone.

![Drill #2 Diagram]

a. As the vertical RED LEDs (VLED) begins to sequence downward the fencer will move to their En garde position, while anticipating when to start loading their legs.

b. Fully loaded legs should occur just before the last VLED comes ON so that a vertical hop can commence immediately when the buzzer beeps and the VLEDs go OFF.
c. The coach can now illustrate that landing on one foot will allow ‘gravity’ to help accelerate the fencer, along with the Stretch-Shortening Cycle Forces, in the direction of the opponent.

d. The Offensive fencer will rise into the air as the Red LEDs sequence in a downward direction; the Offensive fencer will then land on the rear foot and accelerate 2 steps in the Forward direction with a Thrust and Hit in Outside Middle Zone.

e. The Defensive fencer should rise into the air and as the Red LEDs sequence in a downward direction. The Defensive fencer will land on the front foot and accelerate 2 steps in the Backward direction and counter with a Parry to the Outside Middle Zone.

f. Fencers can start with a Feint and develop or time their movements with the vertically sequencing VLEDs such that they time the Thrust/Parry point as the buzzer sounds (ALL LEDs go OFF).

g. Drill repeats steps a, b, c, d, and e 8 times

3. **Drill #3** BALESTRA & Target moves - Advance, Lunge and Thrust movement (or Retreat and Parry) towards the Inside Middle Zone.

a. As the vertical RED LEDs (VLED) begins to sequence downward the fencer will move to their En garde position, while anticipating when to start loading their legs.

b. Fully loaded legs should occur just before the last VLED comes ON so that a vertical hop can commence immediately when the buzzer beeps and the VLEDs go OFF.

c. The Offensive fencer will rise into the air as the Red LEDs sequence in a downward direction; the Offensive fencer will land on the rear foot and
accelerate 2 steps in the Forward direction with a Thrust and Hit in Inside Middle Zone.
d. The Defensive fencer should rise into the air and as the Red LEDs sequence in a downward direction. The Defensive fencer will then land on the front foot and accelerate 2 steps in the Backward direction and counter with a Parry to the Inside Middle Zone.
e. Fencers can start with a Feint and develop or time their movements with the vertically sequencing VLEDs such that they time the Thrust/Parry point as the buzzer sounds (ALL LEDs go OFF).
f. Drill repeats steps a, b, c, d and e 8 times

4. **Drill #4** BALESTRA & Target moves - Advance, Lunge and Thrust movement (or Retreat and Parry) towards the Hand (Center Middle).

![Image of a target with two green LED lights indicating direction]

a. As the vertical RED LEDs (VLED) begins to sequence downward the fencer will 'center' and then anticipates when to start loading their legs.
b. Fully loaded legs should occur just before the last VLED comes ON so that a vertical hop can commence immediately when the buzzer beeps and the VLEDs go OFF.
c. The Offensive fencer will rise into the air as the Red LEDs sequence in a downward direction; the Offensive fencer will land on the rear foot and accelerate 2 steps in the Forward direction with a Thrust and Hit the Hand (Center Middle) Zone.
d. The Defensive fencer should rise into the air and as the Red LEDs sequence in a downward direction. The Defensive fencer will then land on the front
foot and accelerate 2 steps in the Backward direction and counter with a Parry to the Hand (Center Middle) Zone.
e. Fencers can start with a Feint and develop or time their movements with the vertically sequencing VLEDs such that they time the Thrust/Parry point as the buzzer sounds (ALL LEDs go OFF).
f. Drill repeats steps a, b, c, d and e 8 times

5. **Drill #5** BALESTRA & Movement & Target moves - Advance, Lunge and Thrust movement (or Retreat and Parry) in 8 different patterns

![LED Sequencing Diagram](image)

a. As the vertical RED LEDs (VLED) begins to sequence downward the fencer will move to their En garde position, while anticipating when to start loading their legs.
b. Fully loaded legs should occur just before the last VLED comes ON so that a vertical hop can commence immediately when the buzzer beeps and the VLEDs go OFF.
c. The fencer will rise into the air and as they descend the fencer will alternate the landing foot (so that both legs can develop) and accelerate 2 steps forward.
d. The Offensive fencer will rise into the air as the Red LEDs sequence in a downward direction; the Offensive fencer will then land on the rear foot and accelerate 2 steps in the Forward direction with a Thrust and Hit, dictated by one of the 8 Green LEDs shown in the above pictures.
e. The Defensive fencer should rise into the air and as the Red LEDs sequence in a downward direction. The Defensive fencer will land on the front foot and accelerate 2 steps in the Backward direction and counter with a Parry, dictated by one of the 8 Green LEDs shown in the above pictures.
f. Fencers can start with a Feint and develop or time their movements with the vertically sequencing VLEDs such that they time the Thrust/Parry point as the buzzer sounds (ALL LEDs go OFF).
g. Drill repeats steps a, b, c, d and e 8 times
FENCING Advanced Drills – RED (BEG, INT & ADV)

These drills can be used for either defensive or offensive fencers.

1. 9 Alternating Inside Mid & Outside Mid
2. 1 Inside/Outside Mid, 1 Head, 6 Inside/Outside Mid (fast)
3. 1 Inside/Outside Mid, 1 Head, 3 Inside/Outside Mid (fast), 4 Torso (slow)
4. 7 Inside/Outside Mid, 1 Head, 2 Inside/Outside Mid (slow), Torso (slow), 2 Inside/Outside Mid (fast)
5. 7 Inside/Outside Mid, 1 Head, 3 Inside/Outside Mid (fast), 2 Torso (slow)

Mating Additional or Replacement Remotes

Mating replacement for the Hand Held Transmitter (HHT) is necessary for all units not received with the original purchase. This can be accomplished by following these steps:

1. Turn the power switch OFF.
2. Remove the 6 screws on the back of the unit and carefully separate and turn the back panel upside down and towards the power switch side.
3. Turn the COACH 2 power switch ON.
4. Locate pushbutton switch S2 at the top right side of the Printed Circuit Board near the antenna at the top of the chassis.
5. Press the button on the switch S2 for 1 second and then release the pushbutton.
6. Quickly press and hold for 1 sec, each of the buttons on the remote (8 buttons for the HHT); this button pushing operation must be completed within 15 sec for all the buttons to properly ‘mate’.
7. Test the new remote and see if it will control the COACH 2, if not repeat the steps 5 thru 6.
8. Turn the power switch to OFF, then carefully rotate the back panel into place, being sure the wires are inside so that the rear panel can be easily closed.
9. Install the 6 screws into the rear panel.

Call factory (530-272-7345) for further assistance with any questions concerning the remotes.
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.
# Trouble Shooting the Split Step Coach

<table>
<thead>
<tr>
<th>SYMPTOMS</th>
<th>ACTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Red or Yellow LEDs don’t flash</td>
<td>1. Verify that power switch on side of COACH 1 is ON</td>
</tr>
<tr>
<td>2. RED Battery LED is ON</td>
<td>2. Battery may need charging</td>
</tr>
<tr>
<td>3. Camera LED doesn’t flash</td>
<td>3. Check that the plug is fully inserted into RJ11 connector</td>
</tr>
<tr>
<td>4. Buzzer doesn’t beep</td>
<td>4. Press button 6 on the HHT</td>
</tr>
<tr>
<td>5. Red LEDs flash, but Yellow LED only blink</td>
<td>5. Battery may need charging</td>
</tr>
<tr>
<td>6. Video Option does not work</td>
<td>6. Check that the plug is fully inserted into RJ11 connector</td>
</tr>
<tr>
<td>7. Replacement HHT does not work</td>
<td>7. We might need to mate the HHT to the COACH 1</td>
</tr>
</tbody>
</table>

Call Factory (530-272-7345) for any questions you might encounter.