

# Épée *Hitmate*



## User Guide

Training & practice equipment for the twenty-first century

### ***Epée Hitmate***

The smallest, lightest scoring system for épée practice.  
It's portable, convenient ...and fun to use!

## Introduction

Epee Hitmate works with a standard electric fencing weapon and a standard body-wire. It does not require spools, cables or an electric piste. Hitmate slips into the breeches pocket or is carried in an accessory holster.

It's important that the body-wire makes close contact with the fencer's body, between the weapon and the Hitmate transmitter unit. Normally it's sufficient to route the body-wire up the sleeve (inside the plastron if worn) and across the back.



An Epee Hitmate set comprises three units: A pair of Hitmate units (one Red, one Green) and a Hitmate Floor Console. All three should show the same number on the edge. Hitmate uses a single radio frequency and the numbers allow units to recognise each other. This also allows many Hitmates to be used within the same venue.

## **Batteries**

The Console case is enclosed in a rubber boot. Remove the boot by first easing back one of the top corners, then the second top corner, and finally pull the case out of the front of the boot.

The Console and Hitmate units are powered by standard 9v batteries (type MN1604A or PP3).

Open the battery compartment at the back. Clip in the battery and close the battery compartment. An alkaline battery can be expected to give about 100 hours of use.



## **Switching on**

Switch on Hitmate and the Console by pressing the red button on the top edge. Each unit should emit a single beep. If it does not, you need to check that the battery is correctly connected and is not exhausted. The unit does not beep again if the button is pressed when the unit is already switched on.

## **Switch-off**

To maximise battery life, Hitmate switches itself off after 30 minutes of inactivity. Hitmate can also be switched off by holding the weapon tip switch closed for more than 5 seconds.

The Console switches itself off after 30 minutes of continuous inactivity. It cannot be switched off manually.

## **Battery Replacement**

When the internal battery has reached the end of its useful life, transmitter range will be reduced and the unit may switch off before the normal 30 minute interval. Always use alkaline batteries for best results. Rechargeable 9v batteries do not last so long.

## **Operation**

When a fencer scores a touch on the opponent, the épée tip switch operates and Hitmate signals to the Floor Console. The Console beeps and flashes a red or green light, indicating the hit.

Once a hit is scored, both Red and Green are locked out for a period of about 2 seconds. If opponents make hits in close succession, only the first to hit is indicated by the Console.

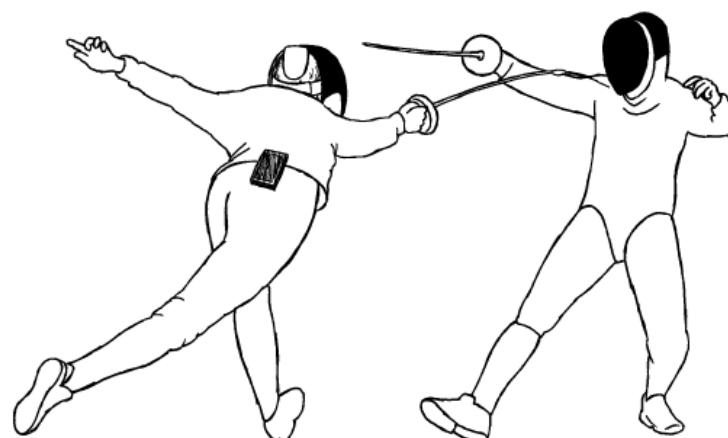
## **Double hits**

If both opponents hit within one twenty-fifth of a second, the Console indicates both Red and Green.

## **Non-scoring hits**

When one player's épée hits the opponent's bell-guard, that player is locked out for a period of 5 ms, and no hit is indicated by the console. For the guard detect mechanism to work properly, the body wire must be worn inside the tunic sleeve by both players. The body provides an earth reference.

Hits to a metal piste do not register on the console. Hits to a wooden floor *do* register on the console.



### **Pre-bout check**

It's good practice before the start of a bout to press the weapon tip onto your shoe to ensure the unit is registering hits. It's also good to press the weapon tip to the opponent's bell guard and confirm no hit is registered.

Unlike wired fencing, you can't use your ungloved hand to press the tip and test for a score response. Hitmate detects your hand the same as a guard, and does not register a hit. If you hold the tip pressed too long, Hitmate will switch itself off.

### **Guard hit detection**

The bell guard is earthed through the fencer's body, and Hitmate detects contact with earth when it registers a non-scoring hit to the guard. Occasionally, a sweat-soaked tunic can be conductive to earth. If Hitmate appears not to register hits after working well for a period of time, consider whether the opponent's tunic has become affected by sweat.

### **Operational checks**

If intermittent operation is suspected, it's useful to have some fail-proof tests available. With Hitmate and the Console switched on, the first test is to press the épée tip on to any insulated surface, such as your shoe, and confirm that a hit is registered.

Next, try pressing the tip to an electrical ground, such as the metalwork of a radiator or water tap. A touch to a good earth such as this should never register on the console as a hit.

These two tests are all that is needed to confirm that Hitmate is working correctly. The next two tests check the coupling between Hitmate and the fencer's body.

## **Coupling checks**

Press the weapon tip with your hand or finger, making contact with the bare skin. No hit should be registered. If the Console does register a hit in this case, repeat it while touching your own bell guard. If now there is no hit registered, then the coupling between the body wire and your body is not good enough.

Normally it is adequate to have the body-wire running the length of the arm, inside the sleeve. For better coupling, ensure the body wire is *inside* the plastron (if worn) then route the wire over the shoulder and down the back, inside the tunic.

Try a touch to the opponent's hand (not glove). This should not register a hit. Then try a touch to the opponent's guard. This also should not register a hit. If it does register, the opponent's body wire is not well coupled to the body, or there's no connection to the 'far' pin of the opponent's body wire.

It's only necessary to do these checks if you suspect Hitmate is not working the way you expect. Normally, you just pass the body wire down your sleeve, plug in both ends and start fencing.

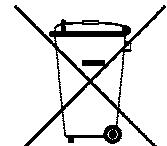
## **Questions**

Fencing without wires may feel unusual at first.

If we can resolve any questions you have, please email us at [hmservice@hitmate.co.uk](mailto:hmservice@hitmate.co.uk). We will do our best to help.

If your Hitmate develops a fault, please return all three units as a set to your supplier, or send an email to [hmservice@hitmate.co.uk](mailto:hmservice@hitmate.co.uk) describing the problem, and we will do our best to provide a speedy and satisfactory solution.

### DISPOSAL INFORMATION



Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your local authority for recycling advice.

### FCC DECLARATION OF CONFORMITY

For Console receiver Hitmate HC2100  
and Hitmate 2100 Series transmitter (FCC ID: XCU2102)

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.

Importer: Fencing.Net. 2080 Peachtree Industrial Court,  
Chamblee, GA 30341, USA. Tel: 877 452 8024

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

# Hitmate

[www.hitmate.co.uk](http://www.hitmate.co.uk)

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