

Sports & Wellbeing Analytics Limited

PROTECH™ HEAD IMPACT

Mouthguard & Charging Case User Guide



The PROTECHT™ mouthguard is a custom fitted tool that is designed to be used in the mouth during training and competitive play.

1. MOUTHGUARD PARTS

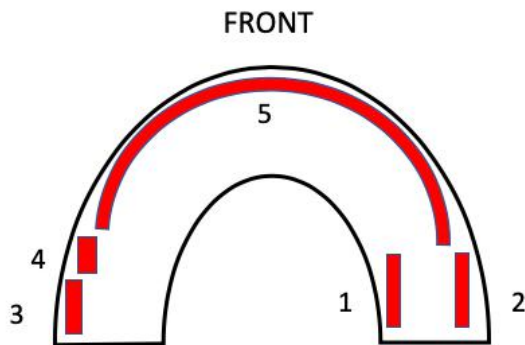


Figure 1

1. Battery
2. Sensors
3. Charging Coil
4. Power Supply Unit
5. Antenna

2. USE

The PROTECHT™ mouthguard should be inserted into a player's mouth and pushed into position over the upper teeth. The mouthguard is custom fitted for each player and should provide a good fit around the teeth and gum.

Due to the fitted nature of the mouthguard it is important that each player only use the mouthguard provided for them otherwise it will not provide either an adequate level of protection nor accurately record individual impacts.

Each mouthguard should be frequently inspected for evidence of excessive wear around the areas which contain the electronics. Damaged units should not be re-used.

The mouthguard, particularly the areas around the electronics and the battery should not be chewed under any circumstances.

The mouthguard is intended for use in training and competitive game situations.

3. CLEANING

The PROTECHT™ mouthguard will require cleaning and disinfecting between uses to ensure that no harmful bacteria are transferred to the user.

To clean the mouthguard simply hold under running water, rinse thoroughly and dry. A disinfectant spray suitable for oral use (not provided) should then be applied. The mouthguard should be left to dry before charging and resprayed with the disinfectant before being worn.

When not being used or charged the PROTECHT™ mouthguard can be stored in the charging case or in the supplied mouthguard box.

4. CHARGING

The PROTECHT™ mouthguard requires charging before use. This must be done in the charging case provided. Each case can charge up to 24 mouthguards simultaneously.

To charge the mouthguard, open the charging case and remove the mains power lead from the case.

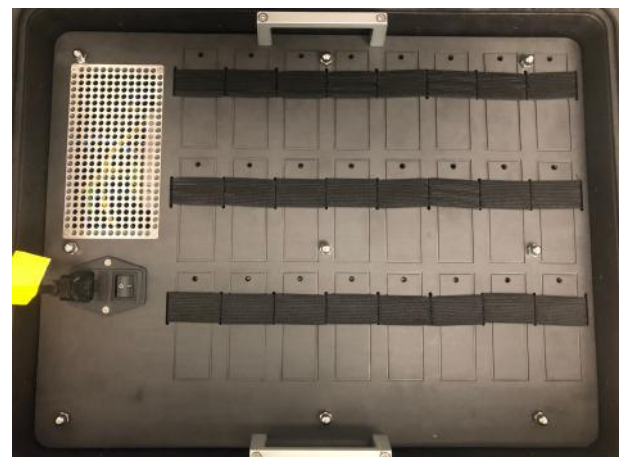


Figure 2

The lead should be connected to the charging case inserting the small 3-pin plug into the matching socket in the case adjacent to the black toggle switch. (Figure 2).



The charging case should then be plugged into an adjacent wall mounted mains socket and switched on the unit by using the black toggle switch inside the case and moving it to the 1 position. Access to the socket should be maintained at all times in the event of the need to disconnect in an emergency.

To charge the PROTECHT™ mouthguard, insert the mouthguard under one of the bands in the charging case with the charging coil facing downwards. The led light above the slot will start flashing. This indicates that the mouthguard is correctly positioned and is charging (Figure 3).



Figure 3

If the light does not illuminate, remove the guard and reinsert under the band ensuring that the charging coil is under the band.

The PROTECHT™ mouthguard will require 1 hour for a complete charge. The indicator light in the charging case above the mouthguard will continue to flash during this time.

Once charged the indicator light will be on continuously. The mouthguard can be left in the charging case until needed. Once charged each mouthguard the battery will operate for

approximately 4 hours before it needs to be recharged.

It is important to note that a fully charged mouthguard that is left in the charging case will start to discharge once the power is turned off. It is always recommended that the mouthguards are fully charged as close to being used as possible.

If during charging, the indicator light should go off and on periodically, the mouthguard position in the slot may have moved and may need to be adjusted however it will continue to charge but at a slower rate. Should it go off entirely and not come back on, the mouthguard position should be adjusted until the indicator lights up once again. Should that not be possible, it is suggested that an alternative charging slot be used.

To turn off charging to all units press the toggle switch inside the case next to the power cord, moving it to the 0 position. The charging case should then be disconnected from the wall socket and the cable replaced in the slot above the power supply on the left-hand side of the case.



PRECAUTIONS

The PROTECHT™ mouthguard is a precision instrument. The primary purpose of any mouthguard is to reduce sports-related orofacial injuries by absorbing and dissipating impact energy. Critically, the PROTECHT™ mouthguard is designed to also record and transmit head impact data via its on board electronics incurred during these events.

The PROTECHT™ mouthguard contains a rechargeable lithium polymer battery and as such should not be heated or placed near any heat sources such as open fires or cooking appliances.

Under NO circumstances should the PROTECHT™ mouthguard be chewed as this will risk serious damage to the battery and the electronics which could be hazardous to the user.

The PROTECHT™ mouthguard should not be thrown against hard surfaces.

The PROTECHT™ mouthguard should be inspected regularly for signs of damage or excessive wear. In the event such damage is identified, a new mouthguard will be required, and the current guard should no longer be used. In these circumstances, please contact Sports & Wellbeing Analytics Limited on protecht@swa.one.

ELECTRICAL SAFETY INFORMATION

1. Operating Conditions: Charging Case

External Operating Temperature: -10 to +30C
 Input Power (DC supply):
 100-230VAC ~ 50-60Hz 1.7A
 Output Power (DC supply): 3.3-5.5V 100W 50A

2. Operating Conditions: Mouthguard

External Operating Temperature: -10 to + 40C
 Input Power (charging case): 5V 10mA
 Output Power (internal battery): 4.2V 4mA
 Transmission Frequency: 868-915MHz
 nominal (928MHz maximum).



This system complies with Part 15 of the FCC rules. Operation is subject to the following 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.

No changes shall be made to the equipment without the manufacturer's permission as this may void the user's authority to operate the equipment.





Sports & Wellbeing Analytics Limited,
www.swa.one,
Registered Office: [3 New Mill Court](#),
[Swansea Enterprise Park, Swansea](#),
[Wales, SA7 9FG](#),