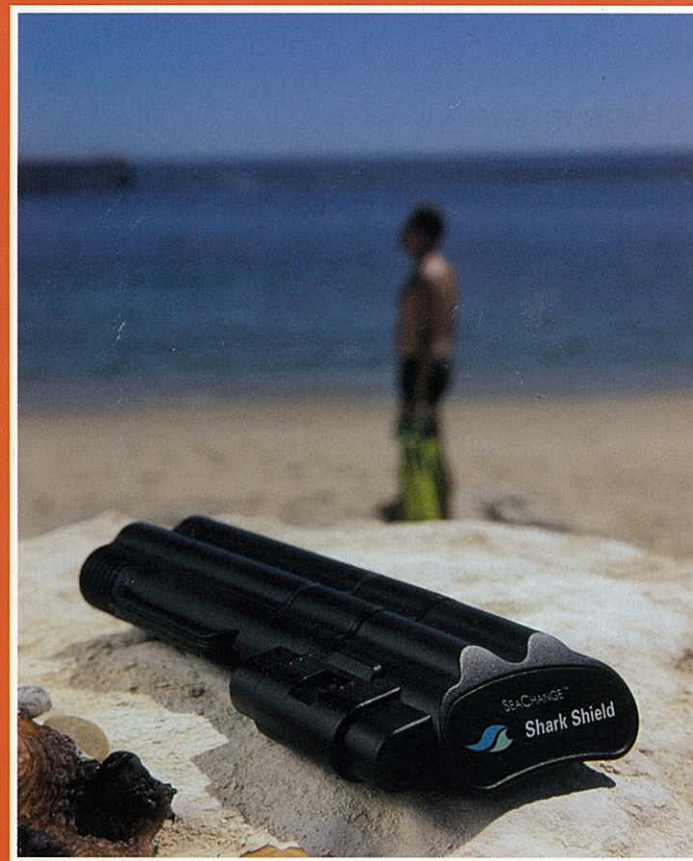




Shark Shield™



PRODUCT INSTRUCTION BOOKLET FOR THE GENERAL PURPOSE UNIT – GPSS01

This Instruction Booklet contains important information.
It is essential that you read it carefully before using
your *Shark Shield™*

SeaChange Technology would like to thank you
for purchasing your *Shark Shield™*

We hope your unit helps you explore and enjoy the oceans
safely and carefree.

If you are happy with your purchase
please tell others about it, if not, then please tell us
at info@sharkshield.com

"Our business, Baird Bay Charters and Ocean Eco Tours, involves our clients snorkelling the west coast of the Eyre Peninsula, interacting with sea lions and dolphins. This is the home of the Great White Shark. The only way that we can feel safe is by using Shark Shield. Our customers are much more relaxed knowing we are using a protective device. Shark Shield is a great scientific breakthrough."

Alan & Trish Payne

Baird Bay Charters and Ocean Eco Tours

CAUTION PLEASE READ PRIOR TO USING THE SHARK SHIELD

It is essential that you read the instructions in this booklet carefully and in full before using the *Shark Shield™*. This booklet contains vital product and safety information that you must be aware of prior to using this product. The *Shark Shield™* (including the battery pack and electrodes) must be used and maintained strictly in accordance with the instructions in this booklet.

By using the *Shark Shield™* you agree that you have read and understood the information contained in this booklet. Your use of the *Shark Shield™* constitutes your acceptance of the terms and conditions contained in the Indemnity and Purchaser Undertakings that appear on the warranty form included with your *Shark Shield™*.

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WARNINGS

SHARKS ARE DANGEROUS

Sharks can be dangerous and often unpredictable creatures. While extensive testing has been done and great care has been taken, to develop and manufacture the *Shark Shield™*, it is simply impossible to guarantee that all sharks will be deterred under all circumstances. With or without the protection of a *Shark Shield™*, all sharks should be treated with respect and caution. Water sport participation in the presence of sharks is inherently dangerous and is not a recommended activity. Any human activity in the water near sharks must always be considered as possessing a considerable degree of risk.

SWITCHING THE SHARK SHIELD ON

In order for the *Shark Shield™* to operate effectively the unit must be switched on when the user enters the water, left on for the duration of the users time in the water, then switched off as the user exits the water.

WARNING CONCERNING HEALTH AND PREGNANCY

Anyone with any health condition which could increase their sensitivity to the fields created by the *Shark Shield™* should not use the device. Such conditions include heart disease, a history of heart problems, peripheral vascular disease, stroke, a history of fainting or epilepsy, lung disease, or if the user is on any prescription drugs that are administered for these conditions. People who have pacemakers or are pregnant must not use the *Shark Shield™* and should also avoid swimming very close to any person using the *Shark Shield™*.



Shark Shield™

DO NOT USE THE UNIT OUT OF THE WATER

The *Shark Shield*™ is not designed to be used out of water. Do not turn the unit on unless it is being used in the water, or unless testing the unit is operating prior to use. (See 'ASSEMBLY AND OPERATION')

BATTERY OPERATION

The *Shark Shield*™ must be maintained and treated as per the instructions. Like any other electronic device, the *Shark Shield*™ will only work reliably if it is treated in accordance with the procedures outlined in this instruction booklet, **and if the battery is correctly charged**. A green pulsing LED shows when the unit is operating normally. If the battery is running low, a continuous red LED lights up next to the green pulsing LED, warning the user that they have 15 minutes left in which to leave the water before the battery is fully discharged.

ELECTRODES

Do not touch the electrodes when the unit is switched on.

CHILDREN UNDER 12 MUST NOT USE THE SHARK SHIELD

The *Shark Shield*™ must not be used by children under the age of twelve (12) years old. Children above the age of 12 must be supervised by an adult to ensure that the *Shark Shield*™ is used correctly and in accordance with the instructions and warnings contained in this booklet.

INTRODUCTION

The *Shark Shield*™ is your personal electronic shark deterrent unit, which, when used in accordance with the instructions contained in this product instruction booklet, poses no danger to the user, to sharks or to the environment.

The *Shark Shield*™ does not repel any other form of marine life other than predator sharks.

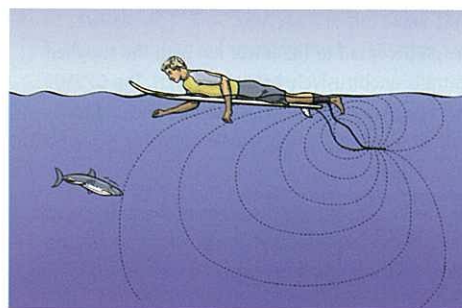
The *Shark Shield*™ continues the tradition of shark deterrent effectiveness, established by the original Shark POD™, developed by the Natal Sharks Board of South Africa. The technology has been reinforced by years of use by professional and recreational divers throughout the world.

The *Shark Shield*™ generates an electrical field that, it is believed, is detected by the shark via its sensory receptors, known as the Ampullae of Lorenzini, found on the snouts of all predator sharks. The initially mild discomfort increases if the sharks approach this field until it becomes intolerable. The sharks then veer away and leave the immediate area.

The electrical field is propagated via two electrodes, which are placed within the antenna of the GPSS01. Direct contact with, or very close proximity to the electrodes may cause twitching of the surface muscles of the skin, in time with the pulsing of the signal. The electrodes must never be touched when the unit is switched on, as this can cause extreme discomfort.

The conductive field readily travels through seawater and surrounds the users body, creating a protective shark "shield".

SIMULATED PROTECTIVE FIELD OF SHARK SHIELD



In normal ocean environments sharks will actively avoid entering the deterrent field. **The user must avoid situations where sharks are excited and aggressive or where feeding is taking place and blood or offal is present in the water.**

The *Shark Shield*™ is intended for use as a personal product only. It must not be modified, re-engineered or used for other than its intended purpose. Modification or use of the *Shark Shield*™ for any purpose or in any manner other than as described in this information booklet will be at the sole risk of the user and may void the manufacturer's warranty and/or render the unit ineffective or inoperative. The manufacturer will not be liable for any injury, loss or damage caused as a result of the modification or incorrect use of the *Shark Shield*™.

SeaChange Technology Pty Ltd, the manufacturer of the *Shark Shield*™, invites you to visit its website to learn more about the history and development of this product. To learn more about your *Shark Shield*™ please visit the section entitled "Frequently Asked Questions". We also encourage you to visit our section on "Testimonials". Your valued feedback on the product is welcomed and encouraged.

Website: www.sharkshield.com

Email: info@sharkshield.com

If you have any technical issues associated with the *Shark Shield*™, please contact your dealer/retailer from where the product was purchased.



SHARK SHIELD GENERAL PURPOSE UNIT – GPSS01

The *Shark Shield*™ GPSS01 is suitable for use by snorkelers, swimmers, surfers and scuba divers.

The GPSS01 is an ideal unit for snorkelers and swimmers. The unit is fitted to the lower leg with the supplied neoprene pouch. Attached to the pouch is an antenna which trails unobtrusively behind the user. The GPSS01 is an excellent alternative to the specialised DIVE01 unit for scuba divers who also surf or free dive. Barely noticeable in the water, this product can be worn with or without a wetsuit, and is simple and easy to use and maintain.

If purchasing the unit for surfing a leg rope must also be purchased. This leg rope attaches to the antenna and surfboard. The GPSS01 will suit surfers who want peace of mind for those times and places where sharks are known to be a potential threat.

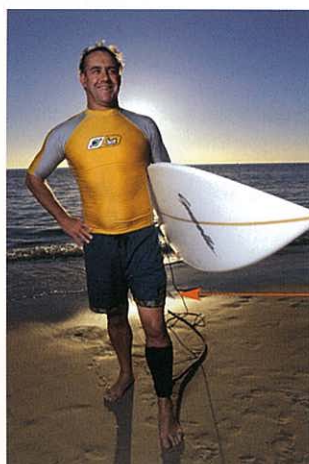
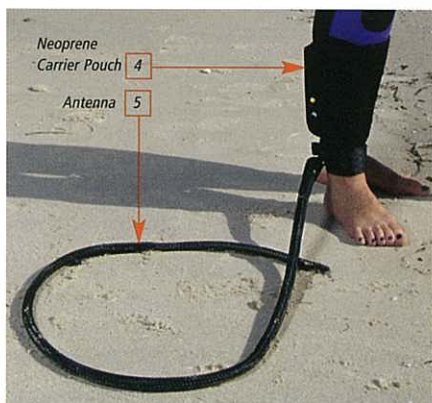
COMPONENTS



Status Indicator Lens 2 1 Switch



View with battery pack removed
Nickel Metal Hydride Battery Pack for GPSS01 3



6 Leg rope for use by surfers

NO.	PART	FUNCTION
1.	Switch	Operation of the <i>Shark Shield</i> ™ is by means of a magnetic switch, activated by moving the slide button towards the status indicator lens, this then switches the unit on.
2.	Status Indicator Lens	<p>When either or both the electrodes are out of salt water a green LED will stay on for 5 seconds, turn off for half a second, back on for 5 seconds and so on.</p> <p>When in salt water the green LED will pulse every half a second.</p> <p>If the battery is running low, a continuous red LED lights up next to the pulsing green LED, warning the user that they have 15 minutes left in which to leave the water before the battery is fully discharged.</p>
3.	Nickel Metal Hydride Battery Pack - GPSS01	<p>When fully charged prior to use, battery duration is 2 hours. Charging time: 3 hours Ensure charger unit is set at 750mAh</p> <p>The battery pack should never be left in direct sunlight in a hot motor vehicle - store in the boot or out of sunlight. After use in the sea, the battery pack should be unplugged, rinsed in fresh water, patted down with a towel and then left in a cool dry storage area. Please ensure that the battery pack is fully charged immediately prior to use</p> <p>Never insert metallic objects, such as wire, into the battery connectors. This may short out, overheat and destroy the battery pack and may cause fire.</p> <p>Do not carry spare batteries underwater as the exposed connectors will become eroded due to electrolysis, which will then prevent the battery from operating efficiently.</p>
4.	Neoprene Carrier Pouch	<p>The <i>Shark Shield</i>™ GPSS01 is worn inside the neoprene carrier pouch. Connectors for the antenna and a shock-cord retainer are also located inside the pouch.</p> <p>When unpacking your <i>Shark Shield</i>™ GPSS01 for the first time, the battery will be packed separately.</p>
5.	Antenna GPSS01	<p>The flexible <i>Shark Shield</i>™ GPSS01 antenna contains two electrodes, which are required to establish the shark deterrent field.</p> <p>Should the antenna/electrode be damaged in any way, this will affect the performance of the unit. Please return the unit to your nearest <i>Shark Shield</i>™ service centre for repair or replacement.</p>
6.	Leg Rope (Accessory)	If using the GPSS01 for surfing a SEACHANGE™ custom leg rope must be purchased. The leg rope connects the antenna and surfboard.



ASSEMBLY AND OPERATION

All components must be installed and used in accordance with the instructions in this manual if the *Shark Shield™* is to offer the specified protection.

Ensure the battery pack is fully charged prior to use.

The neoprene carrier pouch should be opened by peeling back the inside top cover and the battery pushed into the retainer guide of the main unit until the back latch engages.

To test the unit is operating prior to use, the switch may be moved to the on position and a green LED should appear in the status indicator window showing that the electronics are functioning. The green LED will stay on for 5 seconds, turn off for half a second, back on for 5 seconds and so on.

PLEASE NOTE: When the unit is in salt water the green LED will pulse every half a second.

If a continuous red light appears next to the green LED, the battery is low and needs recharging. This should be done in a dry environment with the unit completely dry.

After fully charging the battery pack, store the charger unit in a dry place, Do not operate the charger from an electrical supply close to water.

For surfers the GPSS01 requires the addition of a custom leg rope, which is sold as an accessory (see Part No. ALSH-0001 and ALSH-0002 under ACCESSORIES AND SPARE PARTS) to be fitted to the antenna and then the surfboard before use.

The unit should be switched off until the user enters the water.

When fitting the GPSS01 to the ankle, ensure the velcro flap is securely fastened to prevent water being forced into the pouch. The pouch can be worn on the side or back of the calf depending on the user's preference.

With the unit in place the user should enter the water, activate the switch and set the unit running. For the unit to operate effectively it must be switched on when entering the water, and left on for the duration of the user's time in the water, with the following exception. If using the unit for scuba diving switch the unit off when diving within a confined area such as a wreck or cave but remember to switch the unit back on again.

When entering the surf from a reef or rocky shore, the user should keep the *Shark Shield™* GPSS01 off until in the surf, enabling the user to cross the reef with the antenna held in the hand to prevent entanglement. The unit should then be turned on as soon as the user enters the water.

Users should take care to avoid situations where the antenna can come in contact with the bare skin, as this will result in an unpleasant sensation.

The user can check if the *Shark Shield™* is functioning by moving a hand to within 200mm of one electrode while immersed in the water. The pulse of the unit will be felt via the muscles of the hand. **However do not TOUCH the electrodes when the unit is switched on, as already explained this will result in an unpleasant sensation.**

ASSEMBLY AND OPERATION

If using the unit for surfing, do not grab the antenna to pull the surfboard towards you.

It is recommended a second battery is purchased to ensure there is always sufficient in water time while your other battery recharges. Do not carry the spare battery in the water with you, as electrolysis of the connectors will permanently damage it.

Ensure the *Shark Shield™* is serviced every 12 months by an authorised *Shark Shield™* service centre.

Keep the *Shark Shield™* out of the direct sun and places of extreme heat for lengthy periods.

See Care and Maintenance on page 12

Ensure you are fully aware of all the instructions outlined in this Product Information Booklet.

REMEMBER!! When the continuous red LED battery status indicator is illuminated, only 15 minutes of battery time remains.

NOTE

Do not unplug the antenna/electrode connectors from the unit at any stage. This will void warranty and may interfere with the efficiency of the unit. If disconnection is required for any reason, this must be carried out by an authorised *Shark Shield™* service technician.

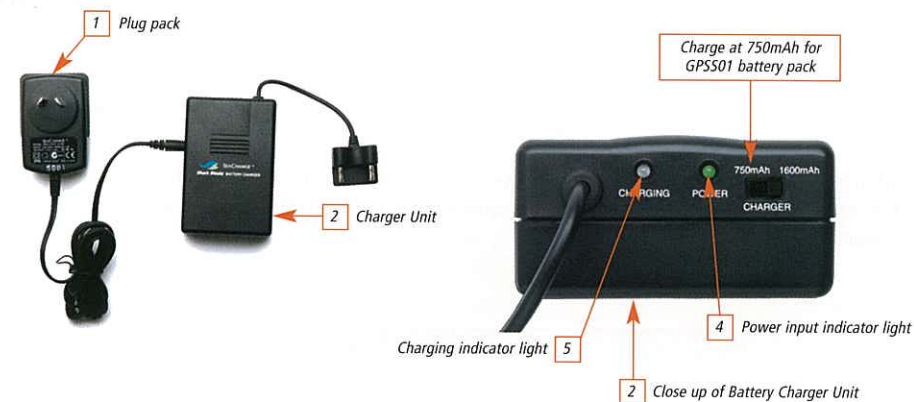


TECHNICAL DATA

Maximum Operating Depth	100 Metres (328 Feet)
Operating Temperature	Between 10°C - 35°C (50°F - 95°F) Lower temperatures will reduce the operating time of the battery pack.
Storage Temperature	Min. 0°C (32°F) Max. 60°C (140°F)
In Water Weight	200 grams (0.45lb)
Dry Weight	1200 grams (2.7lb)
Dimensions Of Main Unit	170mm L x 70mm W x 30mm H 8.27" L x 2.8" W x 1.18" H
Unit Operating Time	2 Hours, depending on water temperature and salinity.
Battery Pack Life	500 charge and discharge cycles

SHARK SHIELD BATTERY CHARGER FOR THE GPSS01

COMPONENTS



NO.	PART	FUNCTION
1.	Plug Pack (AC)	The plug pack will automatically adjust between 110 and 240 volts to suit the electrical supply available. An adaptor plug will allow use of the plug pack in other countries. The adaptor plugs are sold in travel sections of most department stores.
2.	Charger Unit	Slide the switch on the top of the charger unit to choose the correct setting 750mAh for the GPSS01 unit battery pack.
3.	12V Charger Adaptor Lead (Not Shown)	If using the cigarette adaptor of your car or boat (12V DC) insert the adaptor plug into the car or boats cigarette lighter socket. Insert the DC input cord of the AC adaptor into the 12V DC input jack on the side of the charger. Connect the special 2 pin battery connector plug to the battery pack. If using the cigarette lighter cable option in a boat ensure that the power supply is 12 volts and not 24 volts. 24 volts will destroy the charger unit. Replacing the fuse: If the battery pack stops operating when using the 12V charger adaptor lead, follow these steps to replace the 2-amp fuse: 1. Turn the metal ring counter clockwise, then remove the metal ring and tip. 2. Remove the fuse. If it is blown or broken, replace it with a 2A, fast blow fuse. 3. DO NOT use a fuse with ratings other than those specified here. To do so might damage your power pack. 4. Insert the tip into the metal ring and place the ring on the car adaptor. Then turn the ring clockwise to tighten it.



COMPONENTS

NO.	PART	FUNCTION
4.	Power Input Indicator Light	The POWER input indicator light appears green when connected to either the cigarette lighter adaptor cable or the AC plug pack supplied.
5.	Charging Indicator Light	The CHARGING indicator light appears red when the battery pack is connected to the battery adaptor cable. The red charging indicator light turns off automatically once the battery pack is fully charged.

Modifying or tampering with the charger's internal components can cause a malfunction and invalidate its warranty. If your charger is not operating as it should, please take it to the point of purchase for assistance.

TECHNICAL DATA

Maximum Power Consumption	18W
Adaptor Input Voltage	12V DC or 100 - 240V AC, 50 or 60Hz
Battery Capacity	1600mAh/750mAh
Full Charging Time	3 hours
Dimensions	110mm L x 72mm W x 38mm H 4.4" L x 2.88" W x 1.52" H
Approximate Weight	145 grams (excluding AC adaptor or cigarette adaptor)

CARE AND MAINTENANCE

CAUTION

The *Shark Shield*™ must be maintained and treated as per the instructions. Like any other electronic device, the *Shark Shield*™ will not work reliably if it is not treated in accordance with the procedures outlined in this instruction booklet, and if the battery is not correctly charged.

- Ensure the *Shark Shield*™ is switched off after use.
- Wash all components in fresh water after use. Even if you are using the unit again that day it is strongly recommended that the battery pack be rinsed and dried before connecting it to the charger.
- If using the unit for surfing, avoid wax and dirt from becoming enmeshed in the antenna. Keep the *Shark Shield*™ in a separate bag in your surf gear bag. Wash out any wax with hot water and a toothbrush to ensure the unit functions to specifications.
- AVOID SALT WATER CONTACT WITH ANY OF THE CHARGER PARTS.
- The battery pack should never be left in direct sunlight in a hot motor vehicle, nor in fact should any of the *Shark Shield*™ parts be allowed to overheat. If storing the *Shark Shield*™ in a motor vehicle at the completion of a water activity, ensure it is in the boot or in a shaded area.
- When the battery pack is removed from the main housing, it is possible to see two small clear doughnut shaped seals at the base of the battery connector pins. These seals play an important role in ensuring effective battery connection while the unit is in the water. They are soft and may be damaged by abrasion from sand particles if not regularly washed clean before a battery pack is pushed into place. The manufacturer recommends that these seals be replaced every 12 months or prior if they appear to be damaged in any way. This procedure must be carried out by an authorised *Shark Shield*™ service centre.
- Never insert metallic objects, such as wire, into the battery connectors. This may short out, overheat and destroy the battery pack and may cause fire.
- Do not carry spare batteries underwater as the exposed connectors will become eroded due to electrolysis. This will prevent the battery from operating effectively.
- Keep the *Shark Shield*™ battery charger dry at all times. If it gets wet, wipe it dry immediately. Use and store the charger in normal temperature environments. Handle the charger carefully and do not drop it. Keep the charger away from dust and dirt and wipe it occasionally with a damp cloth.
- DO NOT DISCONNECT THE ANTENNA/ELECTRODE LEADS FROM THE MAIN UNIT UNDER ANY CIRCUMSTANCES – doing so will void warranty.
- If the antenna becomes damaged in any way, this will affect the performance of the unit. Please return the unit to your nearest *Shark Shield*™ service centre for repair or replacement.
- Do not use abrasive cleaners or solvents on any part of your *Shark Shield*™ unit. Do not spray or coat any part of the unit with protective materials.
- Your *Shark Shield*™ must be serviced every 12 months by an authorised *Shark Shield*™ service centre.



Shark Shield™

ACCESSORIES AND SPARE PARTS

ACCESSORIES AVAILABLE	ITEM NO.
Battery pack for GPSS01	ABAT-0001
Surf leg rope – medium 1.5M x 6.0mm	ALSH-0001
Surf leg rope – heavy 1.8M x 7.3mm	ALSH-0002
Charger plug pack Australia	AMIS-0016
Charger plug pack US	AMIS-0024
12v charger adaptor lead	AMIS-0001
Battery charger unit	AMIS-0010
SEACHANGE™ Shark Shield™ Carry Bag	AMIS-0008
Product Instruction Booklet – GPSS01	AMIS-0025
Video DIVE01/GPSS01 – PAL	AMIS-0026
Video DIVE01/GPSS01 – NTSC	AMIS-0027

Please contact your *Shark Shield™* retailer for further details on the full range of accessories available.

Your nearest authorised *Shark Shield™* Service Centre is supported by a comprehensive range of spare parts for your servicing requirements.

You're safer in the water with Shark Shield



WWW.SHARKSHIELD.COM



Shark Shield™ - Freedom 2 & Freedom 4

(2 hr battery pack)

(4 hr battery pack)

Please read the following information if using this product for surfing.

This document should be read in conjunction with the Product Instruction Booklet for the GPSS01 unit, supplied with your product.

Please take the time to get used to your unit – it may take a few sessions before you find it comfortable to wear – but feedback from surfers say it is worth it!



A Shark Shield™ leg rope needs to be purchased if using this unit for surfing. This leg rope replaces your existing rope.

One end of the Shark Shield™ leg rope should be attached to the board, with the other end attached to the small loop approximately half way along the Shark Shield™ antenna.

The unit produces a protective electrical field, which has to be powerful enough to deter a large shark! Please be aware that you may receive a zap from this unit if you touch the electrodes. The following points should be borne in mind when using the unit:

- When entering the surf from a reef or rocky shore, keep the unit switched off until in the surf.
- Do not grab the antenna with bare hands to pull the surfboard towards you.
- Wearing a wetsuit will reduce the electrical stimulation effect.
- Feedback from some surfers indicates it is more comfortable to wear the unit with the antenna protruding from the back of the leg, rather than the side. Try it both ways to see what suits you best.



Antenna on the side of the leg. Try it also with antenna protruding from back of the leg.



Some feedback to date:

"After only 3 months use of the Shark Shield, I am reluctant to go surfing without it."

"Whenever I go out, the guys know I'm wearing a shark repellent and all hang around me like flies."

"Importantly, Shark Shield doesn't impede on my surfing action."

"Good on medium and larger boards. Good with a smooth swell, reasonable and large wave. Not so good on a small competition board and in the slops."

"You need a couple of sessions to get used to it, but it's worth it."

We hope our first Shark Shield™ surfing product makes your surfing enjoyable by bringing you and your family peace of mind – especially for those times when surfing early in the morning or at dusk. Even if this product prevents only one shark attack, then it will have been well worth the effort it has taken to get this far.

We appreciate any feedback you can provide us with. Please email us at info@sharkshield.com with your comments.



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The Shark Shield Freedom 4 (GPSS02) Instruction Sheet

It is imperative this Instruction Sheet be read in conjunction with the Product Instruction Booklet for the GPSS01, carefully and in full, before using the SEACHANGE Shark Shield.

The *Shark Shield*TM Freedom 4 (GPSS02) is similar to the Freedom 2 (GPSS01) unit, but it has the added benefit of a 4 hour battery pack. The pouch has been redesigned in order to fit the larger battery pack.

Note: As the unit has a 4 hour battery pack, the battery charger must be set at 1600mAh.

GPSS02 – GENERAL INFORMATION	
For Use By	Scuba divers, swimmers, snorkellers, kayakers, canoeists.
Restrictions	Not suitable for high performance body boarding.
Description of GPSS02	Main body of unit is worn inside a neoprene pouch, which is attached to the users calf. Two tubular electrodes are encased in a 1.6M antenna, which trails out from the neoprene pouch.
Includes	4 hour rechargeable Nickel Metal Hydride battery pack 100-240V battery charger Must be set to 1600mAh for charging of GPSS02 unit. 12V adapter for battery charger Neoprene pouch
Max. Operating Depth	100 Metres (328 Feet)
Operating Temperature	Between 10° C – 35° C (50° F – 95° F) Lower temperatures will reduce the operating time of the battery pack.
Storage Temperature	Min. 0° C (32° F) Max. 60° C (140° F)
Dry Weight with electrodes	1.45 kg
In Water Weight with Electrodes	400 grams
Unit Operating Time	4 Hours – depending on water temperature
Battery Construction	10 x AA Nickel Metal Hydride 1600 mAh batteries in series. Supplies 12V to power module. Battery pack is fitted with a one way O Ring sealed gas relief valve and thermal overload protection. Battery connectors are gold plated phosphor bronze O Ring sealed, where the metal passes through the end cap.
Battery Pack Life	500 charge and discharge cycles
Battery Charger Full Charging Time	3 hours

Special note regarding Shark Shield battery:

Rechargeable batteries require a degree of cycling when new before they reach their full capacity. Please fully charge and then discharge the *Shark Shield*TM battery 2 times before using the unit. When pushing the battery into place into the *Shark Shield*TM unit, ensure it clicks into place and is firmly seated.

A simple way to discharge the battery is to place the electrodes (i.e. the antenna) in a bucket of water with ½ cup of salt (or use sea water) and turn the unit on. Leave the power module out of the water so that it can be turned off easily without any electrical stimulation to the hand.