

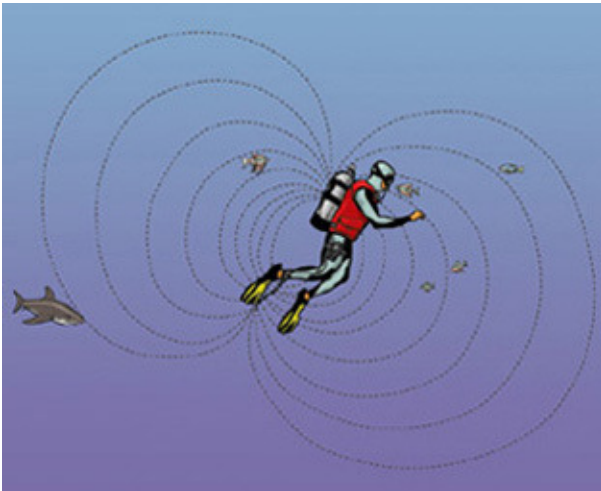
## How It Works

The *Shark Shield™* generates an electrical field that, it is believed, is detected by the shark through its sensory receptors, known as the Ampullae of Lorenzini, found on the snouts of all predator sharks. Once detected by the sharks' sensors, the field causes muscular spasms that result in the shark being deterred from the area.

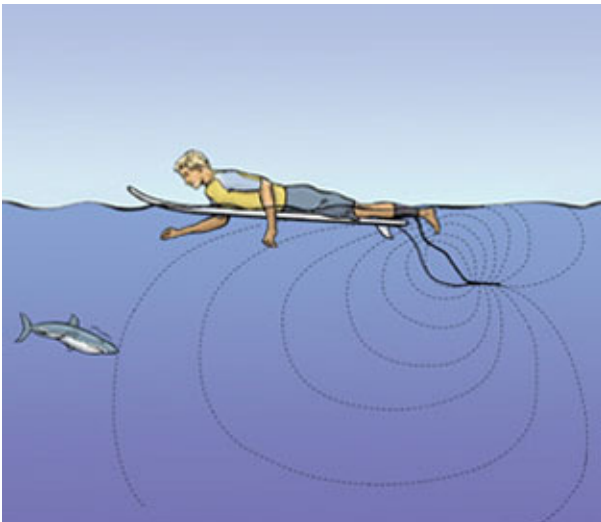
The field is projected from the unit by two electrodes, which create an elliptical field that surrounds the user.

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.

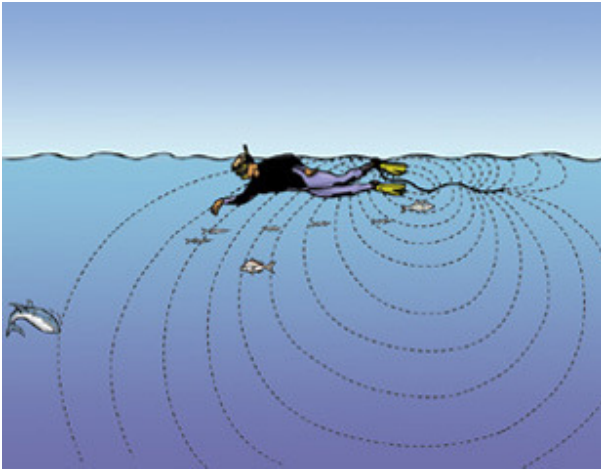
### DIVER:



### SURFER:



## SNORKELER:



### Proven Wave-form Technology

The electronic wave-form used in the *Shark Shield™* is based on the technology of the Shark POD, an electronic shark deterrent product which was invented by the Natal Sharks Board of South Africa. The product was released on to the market in 1995 by POD Holdings Ltd, a joint venture company partly owned by the Natal Sharks Board. The Shark POD was subjected to years of testing prior to being launched, and has since been proven in the market place for several years.



### Proof of the effect of this electronic wave-form lies in:

- The Natal Sharks Board test programme, which was carried out by a group of scientists including physicists, marine biologists, electronic engineers and a large number of professional divers. Tests were carried out over three years in a number of locations around the world.
- Shark POD's reputation amongst abalone and specialist divers, perhaps the most shark vulnerable segment of the community. There are many stories of divers whose lives have been saved by the POD. See Testimonials.

The fundamental Natal Sharks Board/POD Holdings technology has been the subject of millions of Rands of testing, both in the laboratory and the marine environment. The more modern *Shark Shield™* product utilizes the same fundamental technology.

The Shark POD is no longer produced, as it has now been superseded by the *Shark Shield™*.

**Sharks can be dangerous and often unpredictable creatures. While great care has been taken, and extensive testing has been done, 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. Any human activity in the water near sharks must always be considered as possessing a considerable degree of risk.**

## Field Testing

SeaChange Technology has thoroughly tested the new *Shark Shield™* in both South Africa and South Australia against Great Whites. In the continuing quest for excellence, SeaChange Technology has conducted a large number of field trials, during which all aspects of the product have been thoroughly examined. The ergonomics, in water performance and reliability have been and will continue to be tested and improved

## Testimonials from users of the Shark POD and *Shark Shield™*

“Having just come off a boat, after 2 weeks spearfishing in the Coral Sea, I can say that the Shark Shield served me well. Many times I had half a dozen white tips after my fish and they couldn't get close. One time I turned my shark shield off, burlied up, put my fish on a Bombie and then let the sharks come in numbers to get a smell. I then turned my shield on and as much as they were very determined, it was like they were getting punched in the head by a invisible fist. Felt good to have something like that on my leg. For me the shark shield worked even before I was in the water. Originally I was stuck between my love of the ocean and the fear of sharks. The Shark Shield gave me the Confidence to get into the water and I see for myself that this beautiful environment doesn't warrant fear, only respect.

As a Free-diver and Spearfisherman, I am very careful selecting new gear as I am sensitive to any adjustments. The General Purpose Shark Shield unit made me a little unsure. In the water swimming with it, I was aware of it for the first 10-15 minutes. However, after some adjustments in my kicking I felt little difference. I deliberately dragged the General Purpose unit through stag-horn coral, caves and most every rough surface to see if it would get caught up, and in the last six months of regular diving I've had to reach back and unhook it twice. Its only 2m long.

Sure I notice it being there, its about the same drag as like a large knife on your leg. However, on the rare occasion when the men in grey suits turn up (sharks), I thank God its on there.

My thoughts on wearing the Shark Shield are similar to driving a car, **"Why wait for a car crash to put your seat belt on?"**.

Tim Thomas  
Adrenaline Spearfishing Supplies  
56A Deshon Street  
Woolloongabba, QLD 4102  
Brisbane, Australia

“For the last six years, when diving I have worn a Shark POD attached to my bail-out bottle, upgrading earlier this year to the new and more powerful unit, the Shark Shield. In early August, I was hookah-diving in 50m water off Kalbarri, Western Australia, researching a group of cowry shells which are the subject of a book I am co-authoring. After completing a bottom time which had incurred for me a reasonable decompression penalty, I was making a slow ascent when I realized that I was no longer alone. Ten metres away, swimming vertically at the same rate as myself, was a Great White Shark. It was a scenario I had rehearsed in my mind a thousand times during the 27 years I have been diving, but this was the first shark of this species that I had encountered underwater.

My first reaction was to check that the Shark Shield was working by crossing one leg over the other, the braided steel "tail" immediately causing my opposite leg to twitch uncomfortably as it brushed over it. By this time I was 10m below the surface, and signalled my deckhand to lower the decompression shot-line. The shark had continued on a parallel course and in fact briefly

broke the surface with its dorsal fin before making an unhurried turn downwards in my direction. Head-on, the shark was a very intimidating sight and prior to this moment I never really felt "threatened" by its presence. It halted 5-6m away from me. I had the distinct impression that the shark sensed something was "not right" about the wetsuit-clad creature which was the focus of its interest. Several times, it swam out almost to the limit of visibility (15m) before returning and stopping again at the same distanced from me.

The minutes were ticking by as I kept one eye on the shark and the other on my decompression meter. Had the shark begun to behave aggressively, I would probably have boarded the boat immediately, but the Shark Shield appeared to keep it from approaching too close. To say that I felt "safe" would be an overstatement-one feels very vulnerable dangling solo off a line in 50m water in the presence of a 4m Great White Shark – but the Shark Shield gave me the confidence to complete my decompression and avoid a possible incidence of the "bends". The last I saw of the shark was its tail disappearing into the distance; this was a moment I chose to quickly climb into the boat, turning the Shark Shield off once I was on the dive ladder and out of harm's reach.

My lifestyle involves diving many remote and deep water locations off the west and south coasts of Australia. The Shark Shield offers me an element of safety and peace of mind without which I would be unable to pursue my chosen profession with the same enthusiasm.

Peter Clarkson  
Professional Diver, Western Australia

"I have had two encounters with sharks in the past two years. One was a Great White of approximately 4m, diving in clear water at 20m. She came in slowly, totally aware of my presence. The first thing I wanted to do is get the hell out of there, but sensibility prevailed; a quick check to see if my electronic shark repellent was on and functioning – and it was. I just kept still, looking at the shark, wondering if this is what it was like for some of my mates that had been taken by Great Whites. It came closer – suddenly, as if hitting some invisible barrier, at about 8 metres it turned suddenly, shook and disappeared.

I had a similar situation with a 3m Bronze Whaler, where it hit the field and quickly took off.

Every professional and recreational diver working in my area lives with the fear of shark attack – my own brother Paul was taken by a Great White.

I will never enter the water without my Shark Shield, as I am convinced this will lessen the risk."

5th September 2002  
David Buckland  
Professional Abalone Diver, Port Lincoln, South Australia

Ian Gordon  
Biological Field Researcher  
Shark Conservationist  
Presenter Discovery Channel Series

"Shark Gordon" Used Shark POD – Zapper 10 years

I have been involved with electrical shark deterrents since their inception in the early 1990's. The original manufacturers of "Shark POD" (Natal Sharks Board of South Africa) sought my input in trialing the new technology with a number of species of sharks including Great White Sharks off South Australia.

My many years of diving with these incredible creatures has led to a great respect and a firm belief that a shark protection unit that enables people to enter the water without fear will ultimately help to ensure the sharks survival in the future.

The incredible invention of the "Shark POD" technology is a tribute to the dedication and perseverance of a company setting new ground.

My early scepticism changed when I witnessed sharks repulsed from baits set out to attract them. But it took me considerable time to leave the protection of a barred cage, protected only by an invisible electrical field. This I did to test the POD's effect on sharks in a series of experiments – but it worked. I however do not recommend that this technology be used with Great White sharks in "hot spot" areas as a sole form of protection.

Over recent years I have followed the trials and eventual manufacture of the new "Shark Shield". This unit is lighter and smaller than the old POD with a larger more powerful battery. It is also much more user friendly allowing greater flexibility of use.

People often ask me, "Does it work?" – YES. But can I give a 100% guarantee against shark attacks? – NO. The one thing that stands out in my years of research is the unpredictable nature of the animal.

I firmly believe that in the vast majority of cases, when used correctly, it will repel most sharks, but it should not be seen as an invincible tool leading us to believe that now the ocean is our domain. And perhaps this is a good thing, a part of the planet we can not dominate.

With the help of "Shark Shield", and if used correctly, we now have the opportunity to explore the oceans with less risk.

Ian (Shark) Gordon

"In August 99 I was trying to erode the remaining 2 tons of my yearly abalone quota, I decided to work Weirs Cove at the western end of Kangaroo Island, which normally is a difficult area with large swells, but with the right weather, a days catch there is worth 2 or 3 elsewhere.

Visibility was incredible. At a depth of 10M the vis was about 35M. My bag was half full and I was working outside the cage and changing position - that's when I saw it!

This Great White was BIG, 5M at least and coming straight in. The cage was too far away, but almost between me and the shark. It came directly towards me, but as it got to approximately 5M from the cage it shook and almost turned inside out - that's when I realised it had hit the "Shark POD field" that I had set up on the cage.

My relief diver had previously had a similar experience and had told me that " Shark PODs work". Now I believe him."

Rene Spruyt Abalone Diver,  
Kangaroo Island, South Australia

"Ever since Damon had a very bad encounter with a very large Great White at Purdie Island in 1996, we have looked into any way of avoiding another encounter with Great White Sharks. We started out by using an underwater cage unit which we found very restrictive and unsuitable for our working environment, therefore found we still needed to dive freely on hookah gear most working days.

When we saw the first Shark POD unit on the market, we looked into the type of protection it could provide us. We decided to purchase the first model which was quite what we expected, as we needed to use a unit which had a power source on the boat and a hard wire attached to the dive hose. This unit proved unworkable, as the hard wire was too heavy for our air hose and caused it to sink to the bottom and constantly became caught on rocks, reef etc. Therefore we basically used it as a safety unit, which we kept in the boat, so it could be used in the event of another problem.

The day came when I was diving in approx. 35-40 feet off Flinders Island in low visibility, and had been in the water for about 1.5 hours. I was inflating a parachute when a Great White shark, approximately 10 feet in length, approached me. I laid flat on the bottom until Damon got the message to send the Shark POD down to me. I had seen the shark pass very close by five times in about 30 minutes, before the POD was sent down to me, switched on. I stayed on the bottom for another 15 minutes before I felt confident enough to break for the surface. From the moment the POD was in the water, I never saw the shark again. Since the Oz PODS have been available we (my brother Damon and I) have used these every time we enter the water and have found it gives us confidence to dive in most places, without the encumbrance of a cage. We have come to trust and rely on the Shark POD."

Dion Edmunds  
Abalone diver, Streaky Bay, South Australia

"I have from a young boy had an affinity with the sea, and acquired a love for diving that still continues today. I have been professionally abalone diving for some 20 years. The majority of those years I have free dived without the protection of a cage unit. It wasn't until 2 years ago after 3 White Pointer sightings over the years, and continued pressure from my family, I decided that perhaps I was "pushing my luck" and purchased a Shark POD.

I was however, a little sceptical of the protection that the inventors claimed the unit to have, but my doubts were short lived after my fourth confrontation.

I was diving in approx. 25 feet of water for Blacklip Abalone when the swell built up, making it too uncomfortable to work "blacks" so I swam out to the drop off of approx. 45 feet. As I swam out, I caught sight of an 11 foot White Pointer swimming in towards me. I sat on the bottom and watched as he turned and swam along the face of me approx. 18 feet away, and then turned in toward me. I realized then that the battery was low, as the red light was on and remembered Mike telling me that fully charged, the protective electrical field is approx. 7 metres in diameter. How far was it when only half charged? The Shark kept coming straight at me, not rushing, but definitely curious. He hit the field approx. 10 feet away from me and unbelievably it was like he hit a brick wall. He turned tail and bolted leaving me in a wash. I sat on the bottom for a further few minutes but never caught sight of him again. I was that confident, even with a low battery, that I finished filling my bag and returned to the boat where my sheller was totally oblivious to the Shark.

Jeff Grocke  
Abalone diver, Elliston, South Australia

"Like 100's of fellow South Aussies, curiosity to see sharks feasting on a whale carcass in Backstair's Passage was too great to be ignored. Being a recreational diver I decided to use the opportunity to put my Shark Pod to the test in real conditions. The Shark Pod and footplate were fixed about 90cm apart to a buoy and submersed in the water with the pod just below the surface. The switch for the unit was accessible from the boat. It took several hours for a shark to come close enough, but finally one swam under the boat a couple of times. The shark returned swimming across the back of the boat. As it reached the port side of the boat it rolled on to its side readying for an attack to the motor. As the shark drew level with the pod I activated the

Shark Pod, which was submersed on the starboard side about 2 metres away from the outboard leg,. The shark immediately shuddered and froze. After several seconds it veered sharply away from the boat and disappeared. The cost of the Shark Pods was certainly vindicated. Simply the Shark Pod is as much a part of our dive equipment as the air tank

John Walker  
Adelaide, South Australia