

**MICROCHIP IMPLANT
MANUAL
Cats / Dogs**

Spring 2006

MICROCHIP IMPLANT MANUAL

ANIMAL IDENTIFICATION

Microchip technology for animal identification was first introduced in the 1980s and has developed over the years into the injectable chip or transponder used today. Veterinary surgeons, animal welfare groups, animal wardens and conservationists now routinely use microchips worldwide to identify animals. The microchip provides permanent irrefutable proof of identification, without any form of scarring or disfigurement.

HOW DOES IT WORK?

Radio Frequency Identification Devices or RFID. Microchip technology is based on the use of scanners sending out a radio wave or electromagnetic field. When a scanner comes into proximity with a chip, the chip is energised by the radio wave and transmits its unique code back to the scanner.

The scanner LCD will then display the microchip number for a minute. It is the scanner that does all the work!

WHAT IS A MICROCHIP?

A microchip is the size of a large grain of rice (companion animal size usually around 11mm x 2mm), encased in a biocompatible glass, which should be covered by a thin coating like Parylene C or similar to encourage tissue encapsulation . Parylene type coatings are used in human pacemaker and prosthetic surgery, and used to prevent rejection of the item and speed up the bonding process with the tissues.



Photo showing size of chip next to postage stamp.

The Parylene coating forms an irregular surface, which allows the tissue fibres within the animal to bond and grow around the microchip holding it in place. Each chip is randomly pre-programmed with its own individual number. The chip is totally passive, it is not until the energy from the low frequency radio wave from the scanner is passed over the chip that it becomes active. The number then appears on the LCD of the scanner.

THE SCANNER

There are various types of microchips in the market place, 13 digit numbers FDX-A and 15 digit ISO (FDX-B), all of which can be read by ISO compliant scanners,

There are several makes of scanner on the market, so it is important to check the scanner you are using can read both the above standards FDXA and FDXB.

Scanners come in various different makes and models. They all operate in slightly different ways, yet all have the same basic function - that of reading and displaying the microchip number.

USING A SCANNER

This is achieved by simply switching the scanner on by following the manufacturer's instructions

Hold the scanner as if you are going to groom the animal. You need to have the scanner in close proximity to the coat.

Begin scanning SLOWLY over the animal's implant site using small circular motions around the shoulder blade area for dogs and cats.

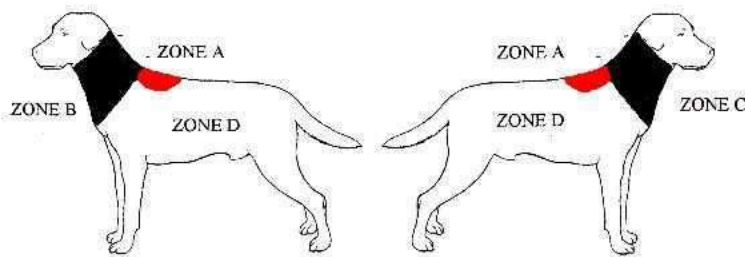
It is important to be aware of the different implant site per species and scan in the appropriate place for the species of animal concerned. If you are a vet practice about to chip a species other than a cat or dog please consult the BSAVA website or microchip distributor to check the correct implant site, prior to chipping for the first time.

- ***Please note it is very important to continue scanning the animal all over the body if the chip is not detected in the normal site. (Different parts of the world use different implant sites)***

SCANNING OF DOGS AND CATS

The microchip site for dogs and cats should be right on the middle of Zone A - coloured in red below. Having said that it is most important before microchipping any dog or cat that you also scan Zone B - left flank, Zone C - right flank, and Zone D - the rest of the body .

Microchips that have been incorrectly implanted in the scruff are likely to migrate around the neck and onto the front of the shoulders or chest. Chips wrongly implanted over the side of either shoulder (instead of in-between) are likely to migrate down either respective leg, so it is important that these areas are thoroughly checked.



When using the 'Identifier' scanner, ensure the nose of the scanner is 'grooming' the coat in small, slow, circular motions, to allow time for the microchip to respond to the signal sent by the scanner. If you attempt to scan too quickly you will simply miss the microchip altogether.

Please note it is very important to continue scanning the animal all over the body if the chip is not detected in the normal site. (Different parts of the world use different implant sites)

MICROCHIPPING PROCEDURE

Before attempting to microchip any animal, you **must always** scan it thoroughly all over to ensure that it has not been previously microchipped. **The person bringing the animal to you to be scanned may not be the owner! Several stolen animals have been identified at this point.**

If a chip is already present **do not** attempt to re-chip the animal. Inform the owner of this fact and investigate previous ownership, contacting a database if need be i.e.:
0870 6066751

If you have scanned the animal all over its body and have not detected a microchip, it is now safe to continue.

Microchipping, particularly dogs and cats, is a simple straightforward subcutaneous injection. **However evidence amassed over the last 10 years proves conclusively that implant site and technique are crucial to the stability of the chip on site and the prevention of adverse reactions.**

IMPLANTATION PROCEDURE

- Firstly verify the sterility of the chip packet. The sterile packet typically contains the needle, microchip and separator within the needle.
- Scan the microchip before opening the packet and confirm that the number matches the bar code.
- Remove the needle from the packet and if appropriate, attach to a gun. Ensure that the bevel in the needle is facing you.

IMPLANT SITE FOR DOGS – SUBQUTANEOUS MID SCAPULAE

- For dogs and cats the chip should sit mid line in between the scapulae (shoulder blades) after implantation and **NOT** in the back of the neck or scruff!



- It is not recommended to implant a chip while the animal is under sedation or asleep without placing it steadily on its front and with its skin in its natural central position, particularly relevant with loose skinned animals. Awake, sitting and gently restrained is best.
- Ask the owner/ assistant to restrain the animal. Then proceed by taking hold of the skin slightly behind the implant site and swab this area with sterilising solution, ie, surgical spirit. Please note that it is important not to pick up too much loose skin to ensure that the chip ends up in the correct place. Never attempt to chip an animal without someone restraining it.
- The entry point of the needle is just beneath your thumb at an angle of about 20 degrees. It is important that you chip towards the animal's head and only expel the chip when the needle is between the scapulae. **The pinch of skin you take up should be at right angles to the spine, across the back of the dog or cat, just behind the shoulder blades.** You should place 2 fingers between the blades and the thumb towards the tail and then inject the needle immediately below your thumb.
- A tip is to remember to take less skin rather than more and to chip deeper rather than shallower. **Do not tent the skin; just 'pinch' the skin fold.**

- Using gentle pressure with the implant gun, insert the needle into the animal, below your thumb. The shape of the needle makes a small cut in the skin allowing the needle to pass through.
- Once the needle is completely in the animal (up to the plastic hilt) activate the plunger to push the spacer in the needle thus implanting the chip into the animal. Please note for kittens and small puppies the needle should only be implanted halfway.
- When extracting the needle from the animal it can create suction. This can sometimes lead to the chip working its way out. **To prevent this ensure that you MOVE YOUR FINGER AND THUMB and pinch the skin around the needle when you withdraw it, effectively milking the chip away from the tip.** When the needle has been removed apply finger pressure on the entry site for a few seconds.
- **Moving your fingers around the needle and pinching the skin upon withdrawal ensures the chip leaves the needle, is implanted in the animal at the correct depth and is retained within the animal and does not pop out at some stage after implant.**
- Replace the plastic cover on the needle. It should be disposed of immediately and safely into a sharps container and treated as clinical waste.
- It is important that you now scan the animal to confirm that the chip is safely in place and fill out the registration form. **Check the implant site to ensure the chip is under the skin and not sitting in the coat!**
- Explain to the owner that the implant site will be sensitive for a while and they **must not** try to feel for the microchip as this could cause it to move from the implant site and prevent the chip adhering to the surrounding tissue.

The above instruction relates to the microchipping of dogs and cats, which is considered a non-veterinary procedure by the Royal College of Veterinary Surgeons.

Microchipping of Species Other Than Cats and Dogs

Please note the microchipping of any species other than cats and dogs should ONLY be carried out by a veterinary surgeon. The reason for this is the varying implant sites for different species some of which are more invasive than others.

Using Other Equipment

Please note the training instruction in this is manual, along with the training you receive on microchipping courses, will be specific to a manufacturer's equipment. Should you at anytime attempt to microchip with equipment other than that manufacturers equipment, you should check training requirements with the alternative supplier. You should be aware that implanting equipment varies from supplier to supplier and you should not assume that all equipment can be operated in the exactly same way.

REGISTRATION PROCESS

THE REGISTRATION CAN BE DONE BY USING THE REGISTRATION FORMS PROVIDED OR ON-LINE

Follow the instructions provided

ALTERNATIVELY

- **COMPLETE THE REGISTRATION FORM PROVIDED ENSURING IT IS LEGIBLE THROUGH ALL THREE LAYERS**
- **ONCE COMPLETED ENSURE THE OWNER CHECKS AND SIGNS THE FORM.**
- **SEND THE DATA CENTRE COPY TO THE DATA CENTRE AT THE ADDRESS SHOWN AS SOON AS POSSIBLE.**
- **KEEP THE IMPLANTER COPY FOR YOUR OWN IMPLANTER RECORDS.**
- **GIVE THE OWNER COPY TO THE OWNER**

Department of the Environment Transport and Regions
DOG IDENTIFICATION GROUP

You may already be aware of the Government initiative to promote a voluntary scheme for the permanent identification of dogs. The issue of straying dogs is fast becoming serious problem. Their report states that:-

Each year over 100,000 dogs are reported as strays by local authorities. The size of the stray dog population and the fate of stray dogs is of concern. As well as causing stress for the dog and the owner, dealing with strays costs each of us financially. It is estimated that over the next ten years, if nothing is done to reduce the number of strays, we will spend between £185-£226 million. This includes the costs of running the dog warden service (£65- £72m), kenneling and euthanasia (£93-140m), attacks on humans and livestock (£16m), and traffic accidents (£4.3m). **About 10% of strays have to be put down because their owner cannot be traced and the dog cannot be re-homed.**

The Dog Identification Group comprised of representatives from animal welfare groups with observers from the Association of Chief Police Officers, a number of Government Departments with interest in dogs, the Royal College of Veterinary Surgeons, and the Animal Health Trust, the aim of the group being to determine the most efficient method of identifying stray dogs in order to re-unify them with their owners. This was done with the assistance of several dog welfare organizations offering the Government differing proposals on dog identification and registration.

The recommendation of the Group was that the Government should accept a voluntary scheme for the permanent identification of dogs by either microchip or tattoo and that the scheme should run up to five years with the aim of achieving permanent identification of around 75% of the dog population. Although, the Group has pointed out that **tattooing is not deemed an acceptable form of identification for dogs re-entering the UK under the Pet Travel Scheme**, which specifies that dogs are fitted with a microchip. The report can be found in full on the Government website.