# INSTALLATION INSTRUCTIONS, and TRAINING MANUAL

for the new, DIGITAL RadioPet® ELECTRONIC FENCE

# INTRODUCTION

The new, digital, RadioPet® ELECTRONIC FENCE should ensure freedom and increased security for your dog, and peace of mind for you. It comprises an effective, invisible, retaining barrier ... around all or part of your property where you have a designated area within which you wish to contain one or more dogs. It can also be used to exclude your dog(s) from, for example, a prised flowerbed, a pond, a swimming pool or a children's play area.

The RadioPet® Electronic Fence system operates continuously and automatically. It has been designed to enable DIY installation, even for those with the minimum of capability or inclination. If you have any difficulties with the practicalities of installation, however, please contact an electrician, builder or handyman for advice.

Read this manual carefully, to ensure that you understand how the system works, that the equipment is correctly installed and that each dog to be contained is trained to respond in the appropriate manner. If you have any queries about training your dog, please contact RadioPet®, a RadioPet® agent, or a qualified trainer for advice.

# SYSTEM OVERVIEW

A simple wire is run around the bounds of your property to create a loop. The two ends of the loop are connected to the **CONTROL UNIT**, which, in turn, generates a harmless, low power radio signal that is radiated from the boundary **LOOP-WIRE**, acting as a transmitter aerial. There will always be less than 14 volts on the loop-wire; so, in the unlikely event that an animal or child were to touch any part of the cable, it is still perfectly safe.

Each dog to be contained wears an electronic **COLLAR** that detects the radio signal when he is within a certain distance of the boundary wire. This distance, referred to as the *active zone*, is adjustable by the user to cater for individual circumstances... but normally set to be about a metre inside the actual boundary.

When a dog moves into the outer section of the selected *active zone*, the radio signal is detected by his collar and processed to emit an audible *beep*, *beep*, *beep* that warns him. If he heeds the warning and backs-off quickly (within two seconds), no further containment activity is necessary. If, however, he ignores the warning, then, after the initial two seconds worth of warning, the tone is supplemented by the first,

(lowest) level of electrical corrective stimulus. If this is still not enough of a deterrent, then, after a further two seconds, the stimulus automatically *ramps up* a further stage to the second level (responded to by most dogs). Finally, if there is still no responding withdrawal, after a further 2 seconds, the system again automatically *ramps up* to the third stage, which should be a deterrent to even the most persistent or insensitive loiterer. All deterrent activity ceases immediately the dog has backed away from the active zone.

In addition to the detection of *time-related loitering*, the new system also detects positional proximity to the boundary wire. The active zone can be visualised as four zones, with the outer layer being initially tone only... and the next three zones, automatically activating an increasingly deterrent stimulus the closer he gets to the wire. Thus if the dog were to progress with his attempted penetration of the active zone, the first, second or even third levels of deterrent stimulus are immediately activated, depending on his distance from the wire.

In environments where several dogs are to be contained, only the *boundary buster* receives 'correction'... and only then, while he is attempting to 'transgress' or 'test' the limits. Most dogs quickly learn about the new containment régime and defer to the boundaries that you have set, even when, in some cases, they are lightly buried or otherwise invisible to them. Whereas with highly <u>visible electric</u> fences many dogs find ways of crawling under or leaping over to get out, the Electronic Fence, being mostly <u>invisible</u>, carries a high level of *mystique* for the dogs and hence is a much greater deterrent. Even *high jumping* dogs can be contained.

The Control Unit is normally powered from a reliable mains supply, using a 120v -12v transformer. The standard system functioning to specification should give safe containment of any number of dogs (each wearing a collar) within a boundary up to 1500 metres in length. Boosted systems or heavier gauge wire can cater for much greater perimeters. These *simple to install* perimeter fences, mostly costing approximately \$37.95 per 500' (just for the boundary kit), can result in a total cost that is significantly lower than that of conventional fencing. The annual running cost would be measured in pence.

# YOUR ELECTRONIC FENCE KIT - SUPPLIED AND REQUIRED

The following items are supplied in a standard RadioPet® ELECTRONIC FENCE kit:
Control Unit (together with template, screws and fixing plugs) for perimeters up to 4,800' of wire. For longer perimeters, RadioPet®can supply a *boosted* Control Unit (for a small extra charge).
Mains Transformer to transform your mains electricity supply to 12v
Collar Unit (for one dog), together with a spare set of probes for dogs with longhaired coats
Collar Charger Lead, with bar magnet attached (to *reset* the collar and to turn it temporarily *off*).
Loop-Wire connectors (2 joiners in the basic kit)
Neon Tester (for stimulation impulse testing).
500' Boundary Wire # 18 AWG ( enough for up to 1/3 Acre )
50 Boundary Flags- (boundary training)

The following additional items, *available from RadioPet*®, are optional: Additional collars - One for each <u>additional</u> dog to be contained (no limit on number of collars) Additional Connectors (2 joiners in a set) for convenience of loop-wire installation. Battery connector to power the Control Unit from a (car) battery.

### **GUARANTEE-Warranty Issues**

Your **RadioPet® ELECTRONIC FENCE kit** is guaranteed against defects in workmanship and materials for a Lifetime from date of purchase to the original owner only. The Limited Lifetime Warranty covers parts only, 1 year labor warranty and a 2 year battery warranty\*. This warrranty is null and void if the system has been improperly handled, damaged in an accident or tampered with. Furthermore, this guarantee does not cover plastic housings, or batteries damaged due to improper charging, dog chews or lost collars. **The system also has a 1 year lightning & Surge Warranty so we strongly recommend the SPRO Lighting & Surge Add-on.** 

# LOOP-WIRE

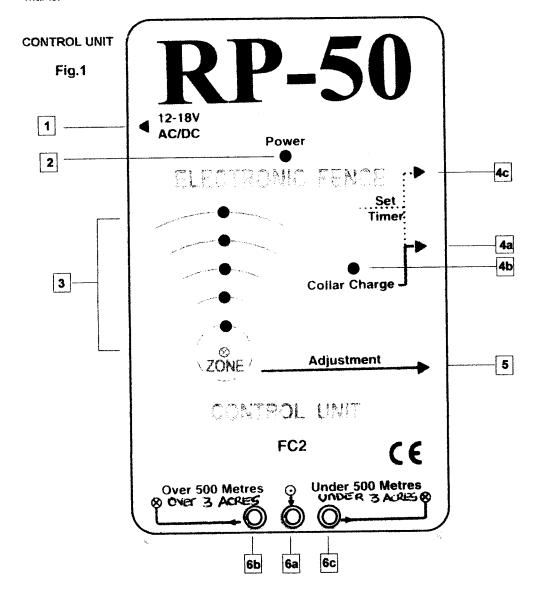
Loop-wire for the boundary is a Polyurethane covered, solid core, It can normally be purchased in reels of 500'.

# THE COMPONENT PARTS

### **POWER SUPPLY**

The Control Unit requires a reliable power source. The Mains Transformer supplied with your kit provides the required low voltage (a very safe 12v) to drive the system. The transformer either plugs direct into your mains electricity supply socket (e.g. in the UK) or RadioPet® will normally provide an adapter to cater for your national requirement.

NOTE In areas where there is no reliable mains electricity supply, a 12v heavy-duty car (or lorry) battery may also be used to power the system. Such a battery would need recharging every one or two weeks, depending on its rating But, manual intervention can be avoided by trickle charging this battery (as with a car battery) from the mains.



1) Power supply - jack socket

Located to the left side of the Control Unit for the input of the low voltage supply from the mains transformer or heavy duty battery 2) Power indicator – (red = Control Unit is powered ON)

3) Zone size indicators – (green). Bottom lamp lit = minimum zone size. All five lit = maximum zone size (typically about 3 metres) These indicate that the unit is working with the zone size that you have set and also confirm the continuity of the loop-wire circuit.

4) Collar Charging - Jack Socket. Located to the right side of the Control Unit (fig. 1.4a), this facility is to recharge the collar battery. The lamp (1.4b) glows yellow when charging. Charge Timer button (1.4c) is pressed to charge the collar for about 17 hours. The

jack plugs for 1 1 and 1.4 are different sizes, so that the power supply cannot inadvertently be plugged into the wrong socket. 5) Field Intensity Adjuster - Increases or decreases the zone size (0 - 3 metres approximately). Refer to COMMISSIONING THE SYSTEM.

6a) Loop-Wire Terminal (COMMON). 6b) Loop-Wire Terminal (> 500 METRES). 6c) Loop-Wire Terminal (< 500 METRES) (UNDER 3 ACRES) It is important for long term success to ensure that <u>good</u> joints are made when joining lengths of loop-wire together (see **Joins in the loop-wire**). For convenience of your installation, we recommend that you plan to use, on average, one joiner for each 500' of boundary length. The connectors supplied by RadioPet® should enable you to make good, waterproof connections in the loop-wire.

It is advisable to protect the wire in places where it might be subjected to mechanical damage (e.g. across the driveway, or where you might accidentally sever it with a spade) by threading it through a section of low-cost, plastic pipe (e.g. alkathene, water pipe or semi-rigid hose pipe).

Installing the system is very simple, but the effort required is dependent on size of the boundary, the route of the boundary, the method of installation (i.e. above or below ground), the terrain and the neatness of the job. To give you some idea of the number of 500' reels of wire that you will require, the following table will give a rough estimate, allowing a 33% margin of error for awkward shapes:-

½ Acre½ Acre½ Acre1 Acre2 Acres4 Acres8 Acres16 Acres20 Acres30 Acres45 Acres1 reels2 reels2 reels2 reels3 reels4 reels5 reels7 reels8 reels10 reels12 reels

# THE COMPONENT PARTS

# POWER SUPPLY

The Control Unit requires a reliable power source. The Mains Transformer supplied with your kit provides the required low voltage (a very safe 12v) to drive the system. The transformer either plugs direct into your mains electricity supply socket (e.g. in the UK) or RadioPet® will normally provide an adapter to cater for your national requirement.

**NOTE** In areas where there is no reliable mains electricity supply, a 12v heavy-duty car (or lorry) battery may also be used to power the system. Such a battery would need recharging every one or two weeks, depending on its rating But, manual intervention can be avoided by trickle charging this battery (as with a car battery) from the mains.

## COLLAR

The new, *digital* collar (Model RP-25) for RadioPet's Electronic Fence system is compatible with all previous models of EF Control Unit. It is, however, more sensitive than before... and we do not, therefore, recommend mixing collar models within the same system.

Internally encapsulated within the new collar box are:-

- a receiver with antenna
- long lasting, rechargeable MH (metal hydride) batteries
- RadioPet/PAC USA's legendary HT power unit and...
- sophisticated, microprocessor driven circuitry.

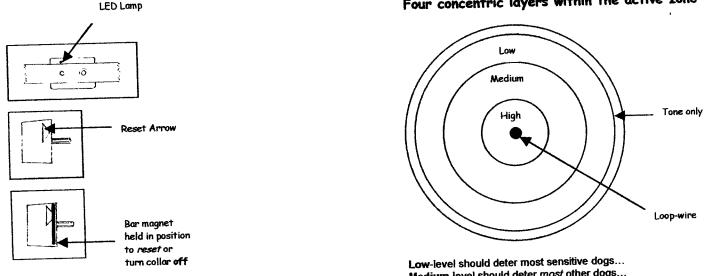
There are no hidden, internal parts of the collar box that need user access. The only specific actions required for the collar are the occasional need to reset it (see end of **Recharging the Collar** section) and the regular recharging of the batteries (see same section, again).

Inspect your new collar box to understand how it works. You will notice that the box has...

- two probes for imparting the correction stimuli
- a small LED lamp to indicate the change from dormant mode to warning/active mode. (*This lamp will not be visible whilst the dog is wearing the collar.*) and...
- an arrow on the side, showing the position of a magnet-operated, reset switch. (For safekeeping, the magnet for operating this switch is attached, to the recharging leads in a plastic sleeve.

The collar is fitted with standard probes that should give adequate contact with most dogs. If your dog has a longhaired coat, however, you might need to change the probes to the slightly more pointed variety - supplied with the collar kit. (*NB When fixing new probes, or tightening loosened probes... do not over-tighten. If necessary a dab of lacquer (e.g. nail variish) on the threaded studs before screwing the probes back-on should help to lock them in place.*)





Medium-level should deter most other dogs... High-level should deter virtually all the rest.

The table over-leaf shows the 'ramping-up' of deterrent stimulus whilst the dog remains within the active zone. You will notice, for example, that if he loiters in the tone-only sub-zone, the warning/deterrent will automatically ramp-up in 2-second stages from tone-only through increasing stimuli till he decides "enough is enough"... and he backs off. Once your dog has been trained, it is within his remit to decide whether to enter the active zone and when to back off. He is hardly likely to run through it.

Warnings & Intensity of Stimulation – Time v Distance from Wire							
	•	Time in Zone					
		O to 2 secs	2 to 4 secs	4 to 6 secs	6 to 8 secs	8 to 10 secs	Over 10 sec
Percentage	0-10%	Tone (only)	Low	Medium	High	High	Off
Penetration	10-40%	Low	Medium	High	High	High	Off
of	40-70%	Medium	High	High	High	High	Off
Zone	70-100%	High	High	High	High	High	Off

All deterrent activity ceases immediately the dog backs away from the active zone.

In the unlikely event that the dog has remained in the zone, because, for one reason or another, he cannot withdraw, then, as a 'humane' fail-safe, all deterrent activity will cease after about 10 seconds. The collar will automatically reset, ready for action, after he has withdrawn to a position once again outside the active zone

When testing the system (with the collar off the dog), the LED lamp will normally flash green at about 4Hz (i.e. 4 times per second) in synchronisation with the beep warning and/or beep-plus-stimulus deterrent. If the LED flashes red, then the batteries will need recharging to ensure safe containment of the dog. Thus, the LED lamp acts also as an indicator of the state of the batteries.

The neon tester (provided with the complete kit), clipped across the probes, will flash to show actual stimulation pulses. The stronger the stimulation the brighter the flash (but this difference might not be perceived easily by your own eye).

We suggest that you charge your new collar (see below)) when you receive it. In the early stages of system implementation when the dog is testing the bounds, there will be a need to recharge the batteries every two weeks or so. But when the dog has recognised the new régime and has realised the futility of attempting to escape, the batteries could last up to four months between charges. Nevertheless, we would still

recommend recharging at least every four weeks, as a safety measure.

Bar magnet is attached to this lead

Recharging the Collar.

To recharge the batteries, it will be necessary to connect the crocodile clips on the charging lead to the collar unit probes - *red to positive and black to negative*. Care should be taken to ensure that the collar does *not* activate by picking up a signal from the loop wire in the vicinity of the Control Unit - (*this can happen if the tails of the loop-wire are not twisted together properly when the system is installed*). Unexpected activation can be variously avoided as follows:-

1) Switch off the Control Unit - by turning off (or unplugging) the AC/DC mains adapter (thereafter attach the crocodile clips... then power back on). This is the preferred method.

2) Hold the reset bar magnet next to the collar with the RESET arrow pointing to the mid-position of the magnet. This action will immediately turn the collar off (*until such time as it is removed from the active zone... when it should automatically reset*).

3) Introduce the collar to the zone and wait approximately 10 seconds (till it stops flashing)...

When the collar is ready for recharge, press the Set Timer button (fig. 1.4c) on the side of the Control Unit. The Collar Charge lamp on the Control Unit will glow *yellow* to indicate that the batteries are being charged. The timer will automatically charge them for about 17 hours. **DO NOT ATTEMPT TO CHARGE** the same collar again within 24 hours, since this could damage its batteries and void your warranty as listed above. Once the collar has been charged it will be in an active state and ready to use. Do not put an active collar on your dog, therefore, until you start your training with him, or until he is ready to wear it in an operational situation.

If at any time the batteries have been allowed to exhaust fully, it will be necessary to reset it using the bar magnet held against the arrow marked on the side of the collar (see **Collar** section).

# INSTALLATION

### **POSITIONING THE CONTROL UNIT**

The Control Unit needs to be installed within reach of a power point that is protected from weather and other adverse conditions. The location should also be in a convenient position for the incoming loop-wire tails. Very often this can be within a garage or shed, but *ideally* it should be mounted in a readily visible location to enable proper monitoring of the system. Since the security of your dog(s) is reliant on the correct functioning of the RadioPet® system, it would be advantageous, therefore, to position the unit near a regularly used access door, *such as the door through which the dogs are let out to the garden*. In this way, you will regularly be able to check that the *power* indicator lamp and the *zone* indicator lamp(s) are lit.

# INSTALLING THE CONTROL UNIT

Using the Control Unit template, mark and drill two holes at the chosen location for the unit. Wall plugs and suitable screws are provided for your convenience. The control unit should then mount easily over the screw heads, using the *keyholes* at the rear of the unit. Do not remove the front cover of the Control Unit. It is not necessary.

Insert the jack plug from the transformer into the jack socket (fig 1.1) and plug the transformer into the mains power socket. Switch the electrical supply **on** and check that the red power light (fig 1.2) glows. Now switch **off** till after you have connected the twisted loop-wire tails.

# DECIDING ON THE ROUTE FOR THE BOUNDARY LOOP-WIRE

In choosing the area to be included (or excluded), it is recommended to take advantage of existing physical features, such as fences, hedges and walls (including those of the house). Not only will your dog readily recognise these, but also he will already be familiar with them as boundaries. Although it is possible, for example, to divide a lawn invisibly into two areas, by installing the loop-wire just below the surface, clearly the dog will need longer to adjust to this arbitrary barrier.... and, with no prior training and with nothing visual to impede his progress, he might easily run into (and across) this invisible boundary, leading to confusion for the dog, making it longer for him to learn and, inevitably, resulting in a significantly greater need for training.

# A TYPICAL FENCE LAYOUT

When you have firmed up on the chosen route around your property, simply run the cable in one continuous loop around the perimeter, starting at the point on the perimeter, to and from which the loop ends will link into the Control Unit location - within your house (or other building). It will be necessary to join lengths of cable at least every 500' (i.e. the length of a reel) or more often, sometimes for convenience.

The section of cable that joins the perimeter loop-wire to the Control Unit housing is referred to as the tail...

And, since the loop-wire would normally start and finish at the same place on the perimeter, there should be two tails. The route of the tails from the perimeter to the Control Unit should be chosen to be relatively short and/or, for convenience, follow a feature from the house (such as a house wall or pathway, alongside which the tails can be laid). By using the twisted tail technique (see **Tail Twisting**) the radio signal will be nullified, allowing the dog to move with impunity in the vicinity of the twisted tails.

#### LOOP-WIRE INSTALLATION METHODS

There are three obvious installation modes... **above** the surface, **on** the surface and **under** the surface. Each mode has its merits. **Above the surface** utilises the radio signal to its best advantage, since the ideal position for the loop-wire is at dog's collar height. **On the surface** leads to quick and easy installation, but can leave the cable open to damage. **Under the surface** is probably the most time consuming, but will, of course, be invisible and consequently aesthetically pleasing.

Above the surface. Fixing the wire to a wall, an existing fence, or running it through a hedge or whatever normally presents no problem. The wire can be stapled where necessary using staples or cable clips, available from any electrical wholesaler. Since the voltages involved are very low, electrical safety is not an issue and the cable presents risk to neither man nor beast. But, when the cable has been threaded through a hedge... beware the man with the shears!

<u>On the surface.</u> Laying the cable loosely on the surface of the ground is clearly the simplest and quickest option. But, the cable could be quite vulnerable to accidental, mechanical damage (e.g. from a lawn mower or strimmer). A surface laid cable is even more at risk of accidental damage when vegetation camouflages it.

**Below the surface.** Burying the cable will, of course, be invisible and consequently aesthetically pleasing. The simplest way of doing this is to cut a slit in the ground with a spade or mechanical edge cutter, bury the cable and then back fill. The fact that a buried cable is effectively invisible will mean that it will, by the same token, be vulnerable to inadvertent damage - for example from a *zealous spot of gardening*.

The deeper the cable is buried, the more the signal is absorbed. Thus, if the cable is buried in **normal** soil to the ideal depth of 25 to 50mm (1" to 2"), the signal radiated (upwards) by the wire above the soil will be little affected. Burying to a deeper level is possible, but beyond about 100mm (4") the signal will start noticeably to attenuate (i.e. be absorbed by the surrounding soil).

**IMPORTANT.** Below the surface installation in certain parts of the country where the soil has a high mineral content can be difficult... and, therefore, not recommended.

# LOOP-WIRE PROTECTION

In situations where the cable is run underground or on the surface and needs to be protected, we would recommend running the cable through a protective sheath of plastic tubing, such as a section of low-cost alkathene tube or semi-rigid, hosepipe.

In areas of high vulnerability above the surface - through a hedge, for example - we would recommend the use of a bright coloured wire (e.g. red or yellow) in place of the commonly used black. In this way, the man with the shears would more likely see it and avoid cutting it.

#### PATHWAYS. DRIVEWAYS AND HARD-STANDINGS

When crossing such areas, it is always recommended to lay the cable in a protective, plastic sheath (as discussed above). This will help protect the cable from heavy service vehicles, bicycles, pedestrian and other traffic. Crossing gravel driveways is relatively simple, since a length of plastic pipe can be set in to a depth of 25 - 40mm (1" to  $1\frac{1}{2}$ "), through which the cable can be threaded.

If it is necessary to run the loop-wire across solid concrete, tarmac or decorative bricks, natural joints should be channelled out, where possible, to receive the cable. However, on some solid surfaces it might be necessary to cut and chisel a groove to a depth of about 40mm  $(1\frac{1}{2})$ . A road-cutter can be hired from a local tool-hire outlet to facilitate the groove cutting. After laying the protective piping, back-fill with a concrete filler, tarmac or caulking compound.

A convenient alternative to channelling across some hard-standings and lightly used solid driveways, is to use surface-mounted industrial-cable-bridging.

# TAIL\_TWISTING

Twisting together the outgoing and incoming lengths (i.e. the tails) of the same loop-wire creates a section

where the radio signal is effectively cancelled, allowing your dog to move freely across this section of wire with impunity. The cable should have at least one twist per 2.5 cm. (1 in) in order to cancel the signal fully.

Thus, twisting the loop-wire tails, from the boundary... all the way into the house... and into the Control Unit should eliminate any unwanted signal elsewhere around the installation. Likewise, when excluding part of the garden (e.g. an isolated, prized flowerbed) the perimeter needs to be interrupted, a twisted pair of *intermediate* tails needs to be inserted and run, buried to *any* convenient depth, and linked to a *satellite* loop that surrounds the bed. In this way the dog will have free access above the route of the tails, but he will be excluded from the designated area (i.e. the flowerbed).

#### JOINS IN THE LOOP-WIRE

If you are not able to install your loop-wire in a single run, the wire will need to be joined. Joining is a simple task, but care should be taken to ensure a well-insulated, watertight union. Your basic kit contains a set of 2 connectors for your convenience.

#### Method of joining, using supplied kit:-

- Step 1 Do not strip the wire
- Step 2 Slide the 2 wires into any of the 3 holes leaving one open.
- Step 3 Using a pair of pliers press down on the black cap until it is fully closed
- Step 4 Wrap the connector, with insulating tape provided, overlapping onto the cable.

### Alternative Method (without RadioPet® joining kit)

A skilled tradesman or diy enthusiast may wish to solder the joint and wrapping with rubber tape

#### **COMMISSIONING THE SYSTEM**

# FINAL SETTING UP AND CHECKS

When you have installed the Control Unit and loop-wire, and have charged your collar, only a few steps will be needed to complete the installation of your RadioPet® ELECTRONIC FENCE.

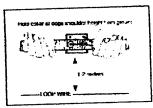
- Before connecting the loop-wire tails to the Control Unit, make sure that the power is off.
- Ensure that the loop-wire tails are twisted together before linking the ends to the Control Unit.
   Connect either end of the loop-wire to the common terminal by means of the screw located at the front of
- the Control Unit (fig 1.6a).
  Depending on whether your perimeter is over 500 metres(3 Acre and over) or under 500 metres( 3 Acres or
- less), connect the other end of the loop wire to either 1.6b or 1.6c
- Restore power to the Control Unit.

The POWER indicator (RED) (fig.1 .2) should illuminate.

The ZONE indicator(s) (GREEN) (fig.1.3)... one or more should illuminate. The FIELD INTENSITY has been pre-set so that the active zone is about 1 metre from the loop-wire on a typical loop length. At this level, 2 or 3 'Zone' indicator lamps should be lit.

The size of the active zone can range from zero to about 3 metres. If the size has to be altered, insert a screwdriver into the FIELD INTENSITY adjustment aperture located to the right side of the Control Unit (fig. 1.5). Turn the adjuster clockwise to increase and anti-clockwise to decrease. (Note there are about 22 turns from fully anti-clockwise to fully clockwise. To find the 'zero' position turn the screw slowly anticlockwise till all the 'Zone' LEDs (indicators) go off. From this position turn the screw gradually clockwise till the desired zone size is achieved. Be gentle with this adjustment. Screwing beyond maximum or minimum will cause the adjustment clutch to slip.)





The collar can now be tested in the field. The collar must be charged for this test. Holding it as shown in this drawing, stand about 4 metres from the loop-wire and move slowly forwards, the distance at which the collar emits an audible signal should give an indication of the zone size. Check at several points on the perimeter that the collar is operating properly, and also check that the collar remains passive where the signal should be cancelled. (i.e. over sections where the tails have been twisted).

If you should need to adjust the field, either return to the Control Unit or enlist a helper. In larger properties a mobile phone or walkie-talkie radio can aid communication with your helper. Hold collar at dog's shoulder height from ground.

If during (or after) the commissioning of the system, you find either the loop or the collar appears not to be working, firstly try resetting the collar with the bar magnet (see Collar)... otherwise testing should take place using a short, continuous, test loop, using, say, a 5-metre (or any convenient length) of loop-wire. Connect the two ends between the COMMON terminal (fig 1.6) and the UNDER 500 METRES terminal (fig 1.7)\*. For the technically minded, the loop-wire resistance 1.5mm<sup>2</sup>) can be measured at about 1 ohm per hundred metres.

\*Very important. When a boosted Control Unit is installed, it is especially important that testing with a short loopwire circuit should only ever be conducted using the UNDER 500 METRES(3 Acres) connection.. A boosted Control Unit will be damaged if a circuit of less than 500 metres(3 Acres ) of loop-wire is connected to the OVER 500 METRES linkage.

The active zone can be pictured as the area around the loop-wire where the signal is strong enough to activate the containment process within the dog's collar. Outside this zone the collar is unaffected, but inside it the containment process is initiated. The ideal position for the loop-wire is obviously at dog's collar height.

A large zone will enable all dogs of all sizes to receive the signal well before reaching the wire... but in a small garden it might reduce the zone-free area, for each dog's uncontrolled access, to an oppressively small space.

The smaller the zone, the more closely the line of the electronic boundary is able to follow the actual, physical boundary ... and is thus much easier and quicker for the dog to understand. But if it is too small, the dog might get through it in error, receiving a deterrent stimulus too late to stop his momentum. If the state of the boundary is good, necessitating the dog to slow down to negotiate a weak point in the fence, the containment process will have a much better chance of deterring the dog from making further progress. This is especially important in the early, training phase (see next section).

# TRAINING YOUR DOG

Familiarisation of your dog with the new collar and the new boundary régime... and training him to respond in the correct manner is essential to ensure security and welfare for your dog... and for your peace of mind.

Temporary Demarcation Flags. During the training period, when you are familiarising your dog(s) with the system, if the boundary is significantly different to that to which he has been used, we recommend that you highlight the existence of the new boundary with a readily visible boundary flagsr. In this way, the dog will quickly associate with the visible boundary. This can be done by marking the INSIDE course of the perceived zone with flags . This will only need to be used as an aid to familiarisation during the training period of about 2 - 4 weeks, but is nonetheless a humane, if not vital element to the security and welfare of your dog. The flags should ALWAYS go where the signal begins (Beeping Area ) rather than on the wire itself.

Familiarisation with the collar. Ideally your dog should not associate the containment process with the collar. Otherwise you will have lost some of your advantage, since he will soon realise that when he is not wearing the collar he will know that he can try to cross the boundary.

To avoid this realisation, you should familiarise your dog with the collar more or less continuously for at least 7 days, before it is used for active containment. Conveniently, this familiarisation should take place at the same time as the phase 1 and phase 2 of training (see later in this section). **Collar Fit** 

During the first day or so, fit the collar loosely, so that it flops around and make its presence felt, deliberately making the dog aware that it is there. The dog then gets used to it and soon ignores it and forgets about it. Thereafter, for the next few days, the collar should be progressively tightened till you can just get two fingers under the collar. That should be tight enough ... snug ... and comfortable, with the probes positioned centrally on the front of his neck. Most dogs will



eventually associate the wearing of the collar with the freedom of going in and out as he pleases...and after several days you should have achieved this objective. A function of the weight of the collar box is to maintain the ideal position of the contact probes - at the centre point of the dog's neck.

Many users have found that the familiarisation process has meant that on occasions their dog has no longer attempted to escape, even when the collar had inadvertently been left off for several days! But beware relying on this. The dog might discover, by accident, that the barrier no longer exists.

#### TRAINING TO THE NEW BOUNDARY RÉGIME

Having completed the installation you can now commence the five phases of active training. Each phase should last at least 4-7 days... but the first two phases together, which include collar familiarisation.

Phase 1 -( Day 1-2) Conditioning to the barrier. Your dog should wear an ordinary collar to which a lead can be attached. Take him on the lead to various points on the boundary, emphasising the presence of the temporary barrier and giving a "NO!" warning/command...DO NOT allow the dog to be loose wearing the collar or actually loose period!

...Guiding your dog, run backwards about 12' from the boundary and lavishly praise him.

Phase 2 - (Day 3-4) Conditioning to the audible signal. Holding the active collar unit in your hand, near to your dog's head, take him to the points on the boundary, as phase 1. Now, as well as just *showing* him the barrier, let him also hear the audible, warning signal...

... Run backwards from barrier, again about 12 ' and lavishly praise him, as before.



Phase 3 - (Day 4-8) Conditioning to the stimulus. Start the next phase of training with your dog wearing the active collar.

As discussed above, fasten the collar to your dog ensuring the probes are at the bottom of the neck... and that you have a snug fit, such that you can get each of two fingers under his collar...

Allow your dog to hear the audible signal followed by the receipt of a corrective stimulus. Repeat the training of the previous phases, running backwards from the barrier. Again **PRAISE** your dog.

Phase 4 -{Day 9-14 } Independent confirmation. Providing your dog is showing positive avoidance near the perimeter, you can safely allow your dog out on his own under supervision and once the dog shows they want to avoid the system while doing phase 2 and 3 - to confirm for himself that the new containment system is now in place. Keep a watchful eye on his activities for this phase... and check daily that your installation is working properly.

Phase 5( Day 15-30) and onwards. Remove the temporary boundary markers in stages over the next couple of weeks every other one week.

The places where a dog really needs most training is at the entrance to an open gateway and at weak points within the current, physical boundary (e.g. a hole in the fence or hedge).

NB. Training your dog as described above is the sensible and humane approach for him to understand the new regime. Whereas it might seem tempting to let him discover for himself, with little or no training, the corrective effects resulting from his lingering within the active zone or trying to cross the boundary. There are two obvious drawbacks... Firstly the dog might discover, by accident, that, with considerable discomfort, he can escape if he runs through fast enough across a weak point - such as an open driveway. And secondly, the new régime will temporarily present a confusing and, in some cases, a frightening environment for your dog - that might make him reluctant to go out into the garden for a few days.

#### TAKING YOUR DOG OFF-SITE

Most dogs will need to taken off-site once in a while, if not regularly. Consideration must be given, therefore, as to how to do it without causing confusion to the dog. Having got the dog to the stage where he sees the garden or estate as being bounded by some invisible barrier, taking him off-site will need special consideration to avoid undoing some of the efforts you have expended in training him. There are several methods available - some better than others. The two most obvious are the least desirable...

**Turn off the power.** This is likely to be very confusing to the dog. "How is it that I can go across *now* but not *earlier*?". This would tend to make him believe that the boundary was only temporary... and hence he might be tempted continuously to test the bounds. If there was any loss off power, or malfunction of the system... He would know about it - quickly!

**Remove the collar.** This would create a similar effect to the previous method. Further, it would let a more intelligent dog realise that the collar had something to do with the system. Thus, if he were ever to find himself without the collar, whether through oversight or by accident, he might soon be away.

Each of the following four methods still requires removal of the collar - and/or switching power off. They also retain the subterfuge that the boundary is permanent, avoiding any thought that the collar has something to do with the containment process :-

Take him across the boundary on a lead. This is a much better method than those above, since he would associate the relaxation of the boundary with you, as *top dog*. But there could still be a small element of confusion... and a possible belief that the boundary was merely temporary.

Carry him across. This does not normally lead to confusion, but is somewhat impractical for some dogs/owners.

Take him across in the car. This is another very satisfactory method, providing you wanted to go out by car!

**Reserve a gateway** (even if it is only a token gateway). This is by far the best solution. The dog is led to believe that the gateway is an 'open-sesame'. When it's open, it's ok to cross... When not... then beware!

In overview, going off-site should always involve removing his collar, even if turning the power off is your preferred method. Ideally, having turned the power off, his collar should be removed *outside* the bounds of your property (and substituted by another collar of similar weight). In this way, he will *not* associate the containment with the electronic collar *and* it will reduce the possibility of losing this relatively expensive item in a large, *public* space. Furthermore, if he is to be on the lead when outside your property, it should be attached to a more suitable collar. The RadioPet® collar is not suitable for the attachment of a lead.

# We wish you every success with your new installation

**Warning:** occasionally an animal cannot be trained to avoid crossing the boundary. Sometimes even a properly trained animal may cross the boundary. Therefore, RadioPet® & PAC cannot guarantee that the unit will, IN all cases, keep a customers animal within the established boundary. Accordingly, If a customer has reason to believe that their animal may pose a danger to others or harm itself if it is not kept from crossing the boundaries, customer should not rely solely upon the RadioPet® unit to keep the animal from crossing boundary.

# Class B Device Statement: (Section 15.105 (b) of the FCC Rules)

"Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- -Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.