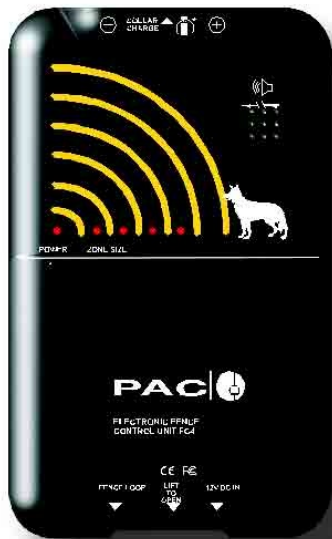


ELECTRONIC FENCE

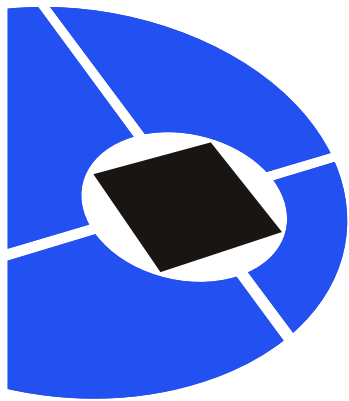


*FC4
ELECTRONIC
FENCE*

Instructions for use



1. Introduction
2. Kit Contents
3. Collar Unit Features
4. Control Unit: Features and Fixing
5. Other Requirements
6. How the system works
7. Layout Overview
8. Choosing the Route
9. Loop Wire Installation:Active Zone/Positioning
10. Avoid Signal Pick-up!
11. Tips for laying the wire
12. Other tips for a tidy installation
13. Joining the Loop wire
14. Twisting the Loop Wire
15. Locating the Control Unit
16. Linking to the Control Unit
17. Typical Installation example
18. Fitting the Collar and Maintenance
19. Batteries and Recharging The Collar
20. System Setup: Changing the Zone Size
21. System Set-up:Testing
22. Training Phase I
23. Training:Phase II
24. Training:Phases III and IV
25. Going Offsite
26. Troubleshooting:Collar Problems Part 1
27. Troubleshooting:Collar Problems Part 2
28. Troubleshooting:Loop Wire Problems?
29. Troubleshooting:Control Unit Problems?



Introduction

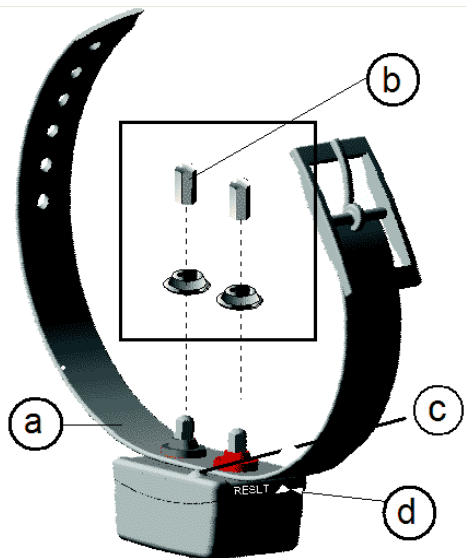
Congratulations on your decision to buy a PAC Electronic Fence. PAC has over 15 years of experience in the design, manufacture and supply of dog containment and training equipment for professionals, enthusiasts and pet owners alike. Many thousands of PAC clients will testify to our enormous success through innovation, reliability and service. PAC's Electronic Fence is the most popular, since it is so easy to install, and has negligible running costs.

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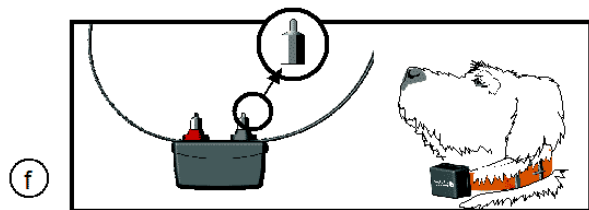
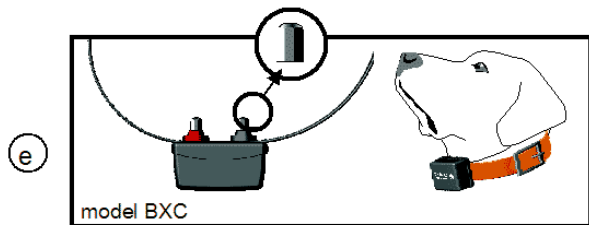


Electronic Fence Systems



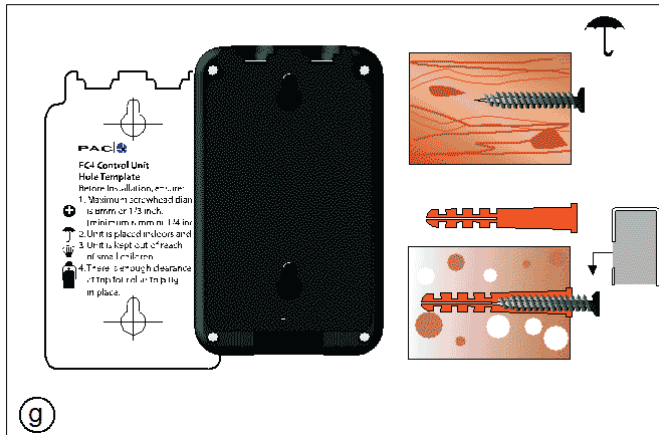
- a) Collar unit (waterproof)
- b) Probe assembly
- c) Status indicator

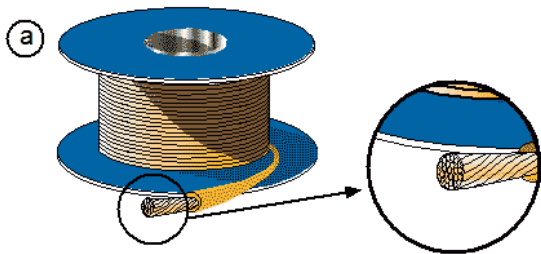
- d) **Reset** contact point. See page 26.
- e) Pointed probes for longhaired coats.
- f) Fitted probes for normal coats.






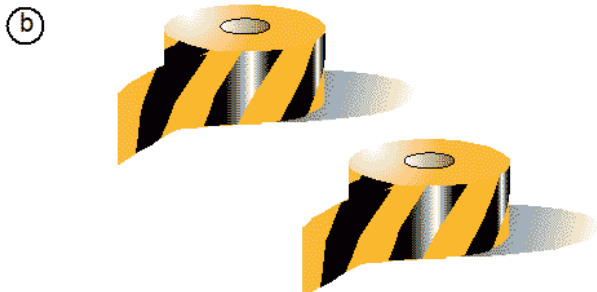
- a) Power input socket
- b) Power supply indicator
- c) Loop-wire zone display
- d) Loop-wire zone adjustment
- e) Collar charging socket
- f) Loop-wire terminals
- g) Use supplied template to mark wall for fixings into wood or masonry
NB Install under cover/indoors.(p15)



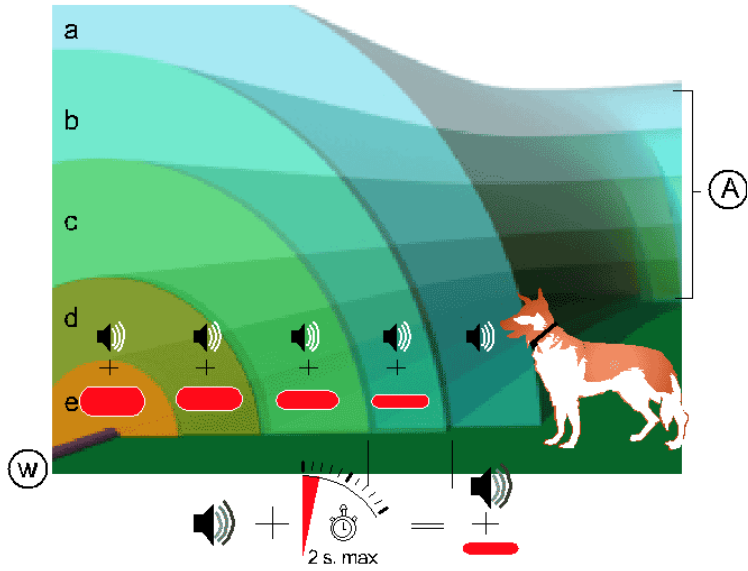


100 Metre reel of 1.5mm² multi-cored PVC cable 7/0.53 BS 6491X or equivalent.

hectares	0.1	0.2	0.4	0.5	0.8	1.0	2.0	4.0
acres:	0.25	0.5	1	1.25	2.0	2.5	5.0	10
 x	2	2	3	4	5	5	7	10

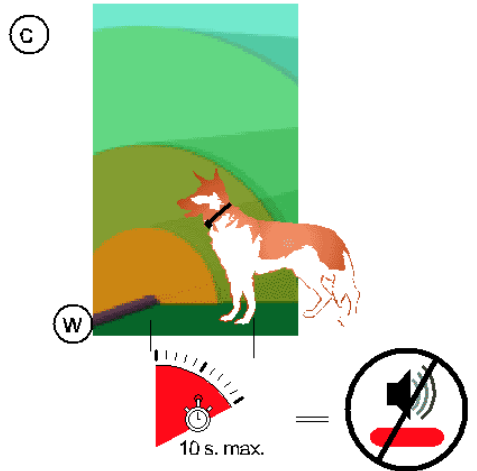


- a) **Loop-wire** (available from most electrical wholesalers in 100 metre reels) Specification - 1.5mm² multi-cored PVC cable 7/0.53 BS 6491X (or equivalent). See table for minimum number of reels required. Add approximately 20% to allow for awkward shaped perimeters.
- b) (Recommended) **Boundary-demarcation plastic-tape**, temporarily to help the dog recognise the new boundaries during the initial training period. (See Training section page 22.) Available from Plant Hire shops and Sports outlets.

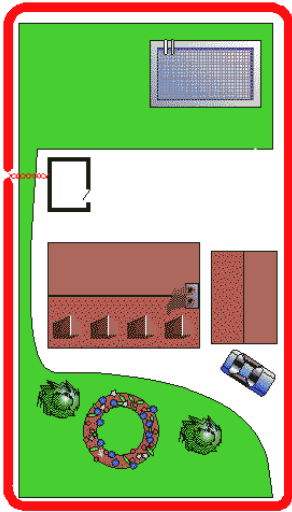


The electromagnetic, active zone (A) comprises several sub-zones. The collar reacts immediately according to time and distance from the wire (w).

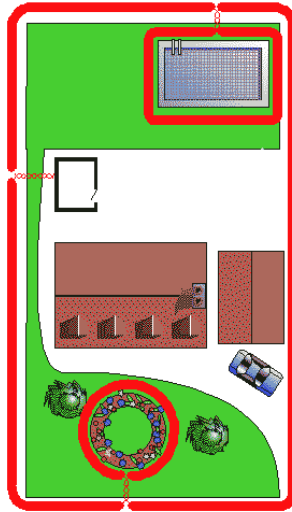
- a) Tone-only followed after 2 seconds by low level stimulus.
- b) Tone plus immediate medium level stimulus.
- c) Tone plus immediate high level stimulus (10 seconds max. for humane reasons)
- All deterrent activity ceases immediately the dog withdraws, when the collar automatically resets



a)

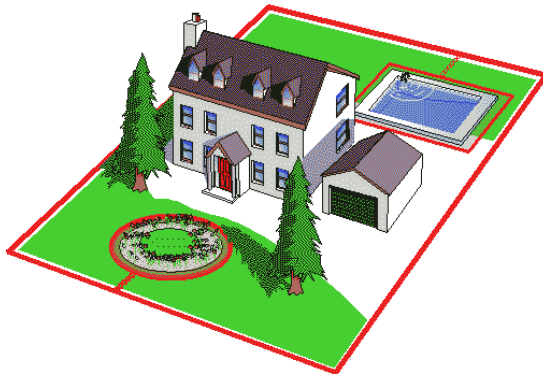


b)

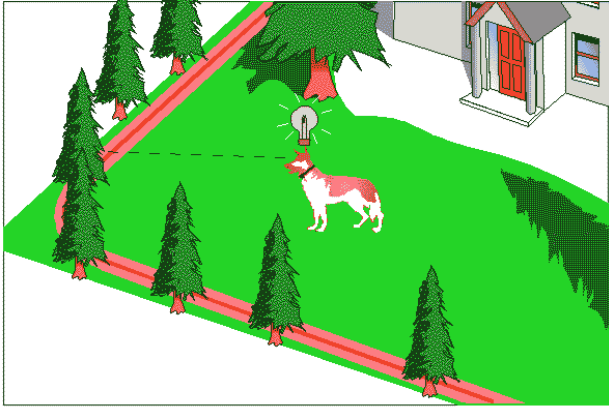


- a) The wire must form a complete loop around the area to be enclosed, starting and finishing at the Control Unit.
- b) Before attempting to bury or otherwise fix the wire in place, lay the complete loop on the surface and test that your chosen route will work to your expectation (see p21). This will facilitate any necessary later adjustment to the proposed route.
- c) When satisfied, firm up the installation (see p12)

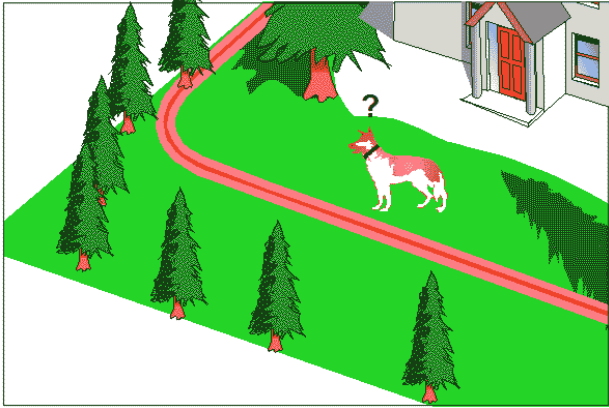
c)



a

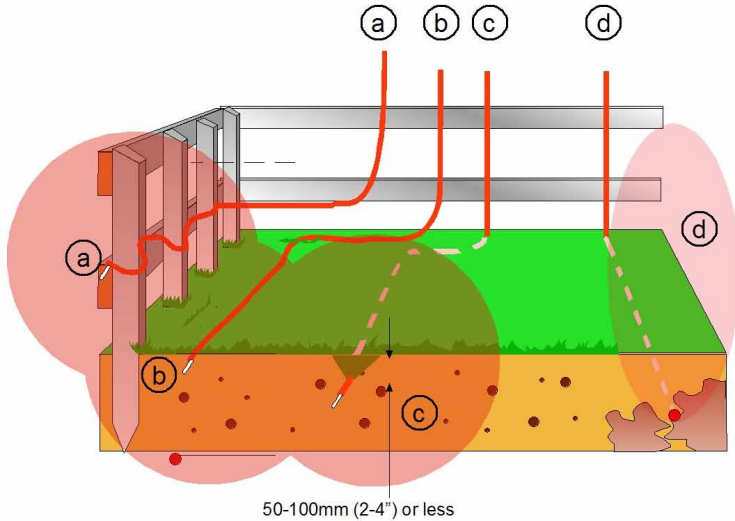


b

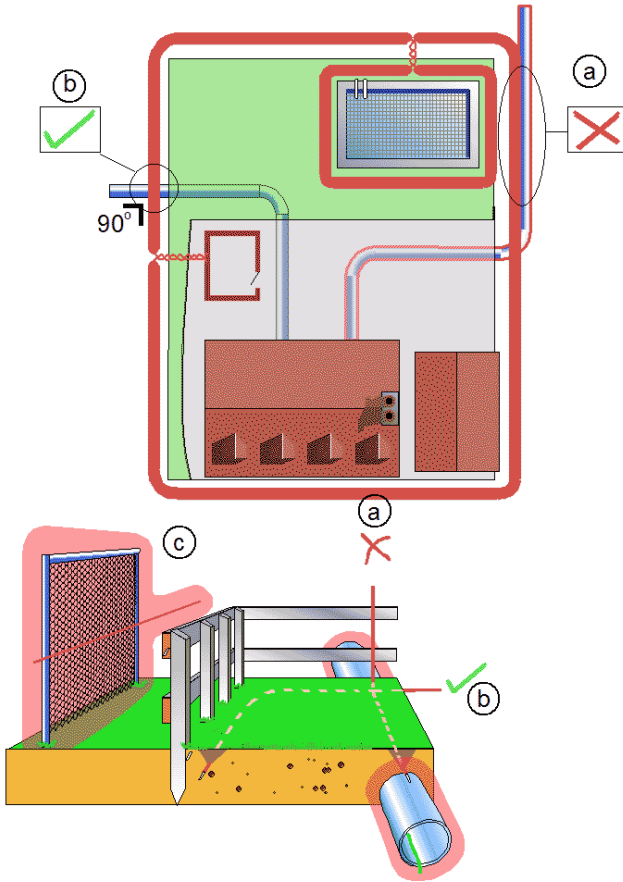


- a) Follow natural boundary markers e.g. fence, wall, line of bushes or trees or the edge of the lawn.
- b) Crossing the lawn, for example, is not recommended, since the dog will not easily recognise an arbitrary boundary.

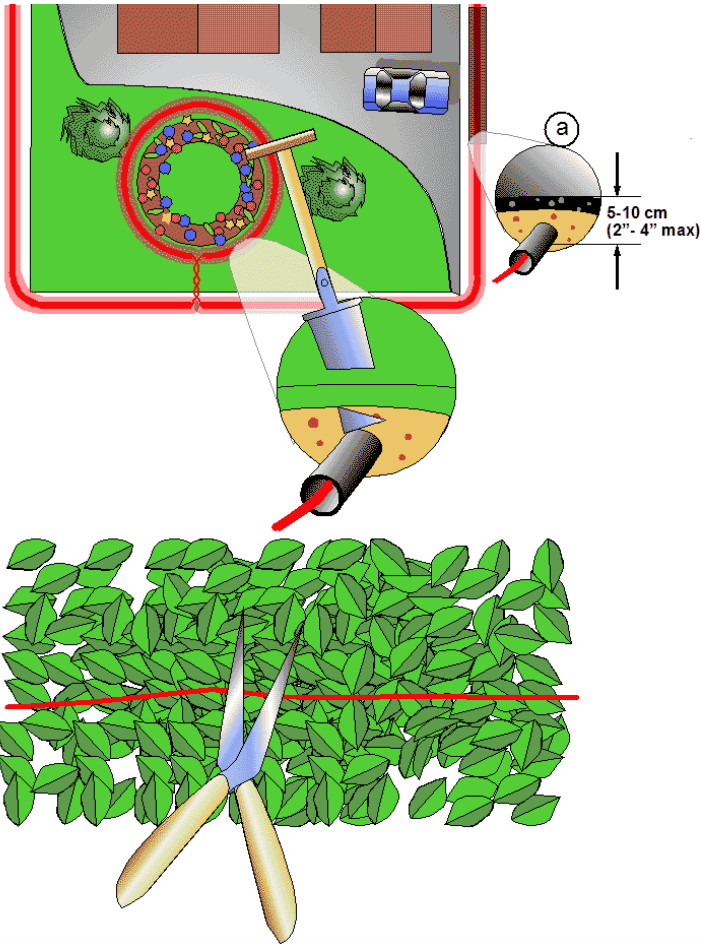
- a) Tacked to a boundary feature. Optimum position = dog collar height.
- b) Laid on the surface (needing a slightly larger zone size).
- c) Buried just below the surface. 50-100mm (2-4")- the shallower the better.
- d) In some areas with high mineral content, it will not be possible to bury the wire much below the surface due to local, environmental factors that can affect the zone shape and size.



- a) Do not lay the cable parallel to incoming conductive (metal) services – e.g. electricity cables or water pipe – since this might cause stray signals to affect the dog's collar in the house.
- b) To avoid this, always cross such services at right angles.
- c) If the loop-wire is attached to a wire mesh fence it will pick-up and radiate the signal. This will not be important if the mesh fence is part of the boundary.

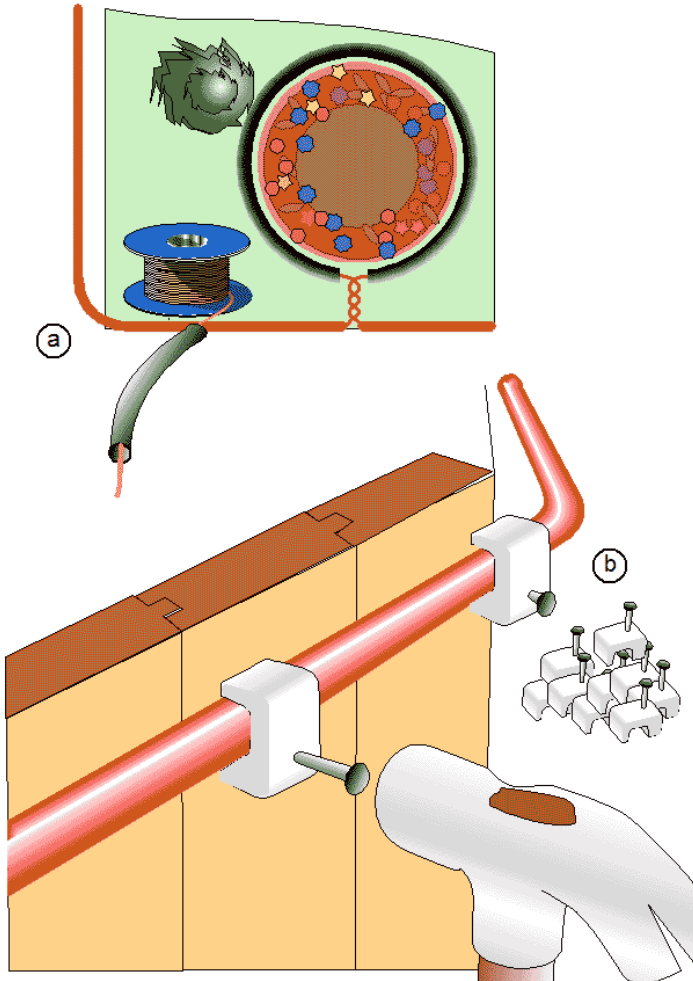


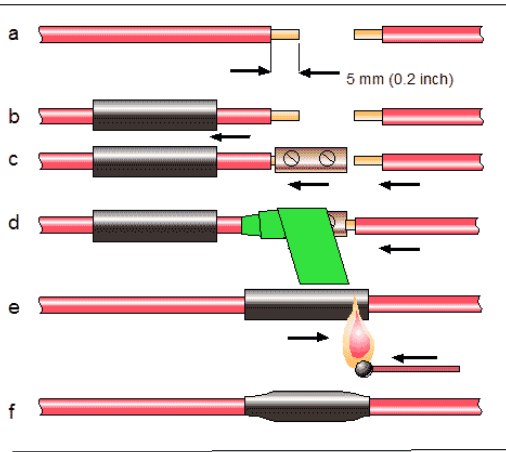
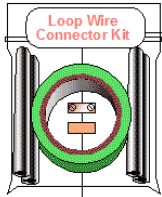
- If burying the cable or laying it on the surface, consider ...
- a) protecting it from excessive wear (e.g. when running across a gravel driveway) or accidental damage (e.g. by a gardener's spade or lawn mower) by running it through a protective sheath e.g. a plastic (water-) pipe (page 12).
 - b) using coloured wire for better visibility when clipping the hedge.



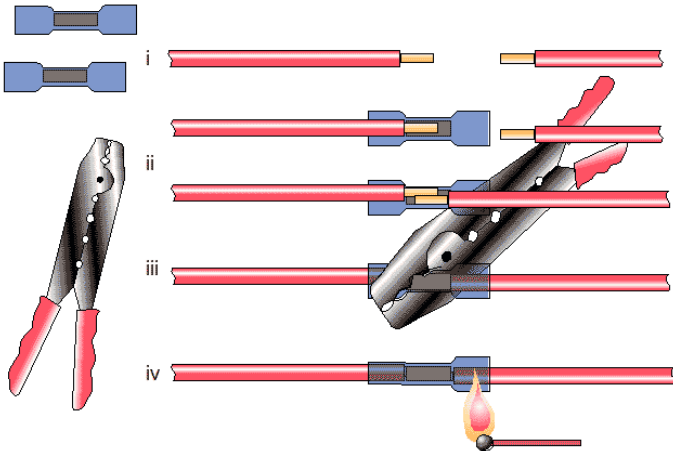
If using plastic piping to sheath the wire, to avoid difficulty in threading the wire through long sections:

- a) use shorter sections of pipe, joining them using short sleeves of larger cross-section pipe.
- b) Use cable clips (available from all electrical wholesalers) to tack the loop-wire to fences or walls.

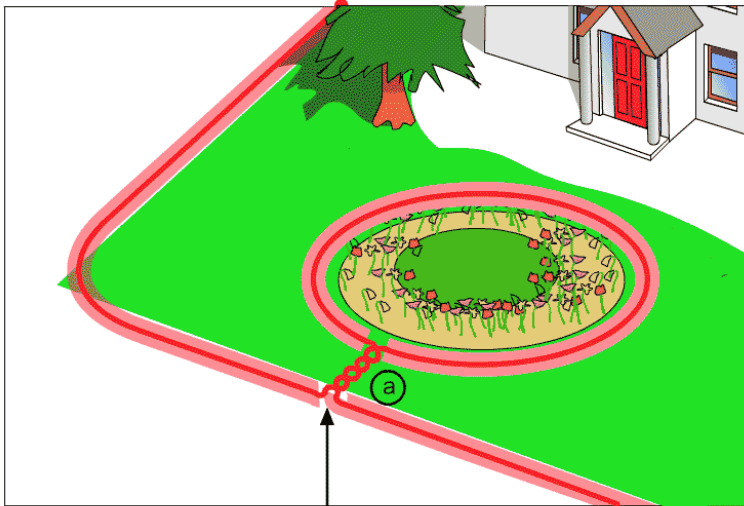




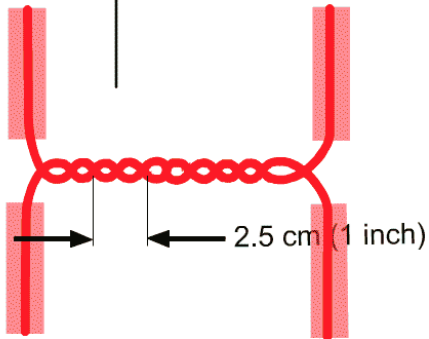
- Standard connector:
-) Strip both ends of the wire to 5mm (1/4")
 -) Slide shrink-sleeve over one of the wires
 -) Join the two ends together using the metal connector
 -) Wrap joint tightly with the PVC tape
 -) Slide sleeve over the assembly and shrink it with gentle heat.
- Heatsealtm Connector: i) strip as above, ii) place both ends into centre of connector iii) crimp with crimping tool iv) heatseal



- a).When the loop signal needs to be cancelled twist an incoming and outgoing section
- b) Ensure twists are close enough to cancel signal



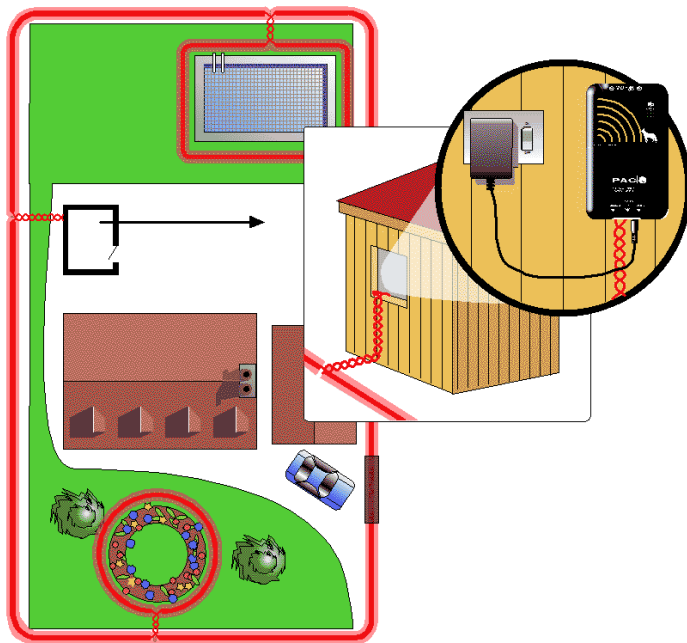
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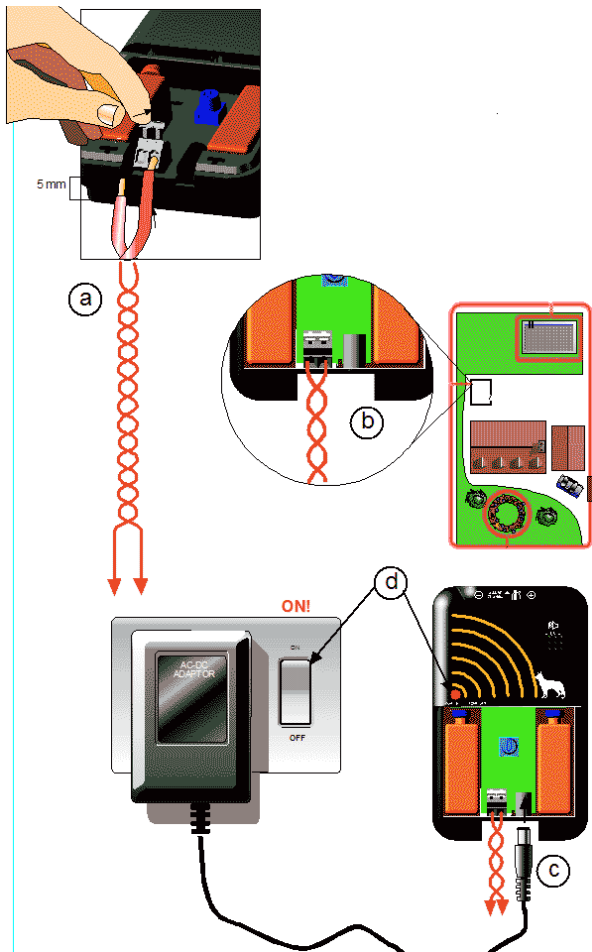


Position the Control Unit somewhere under cover, protected from the weather where it can be seen on a regular basis to check:

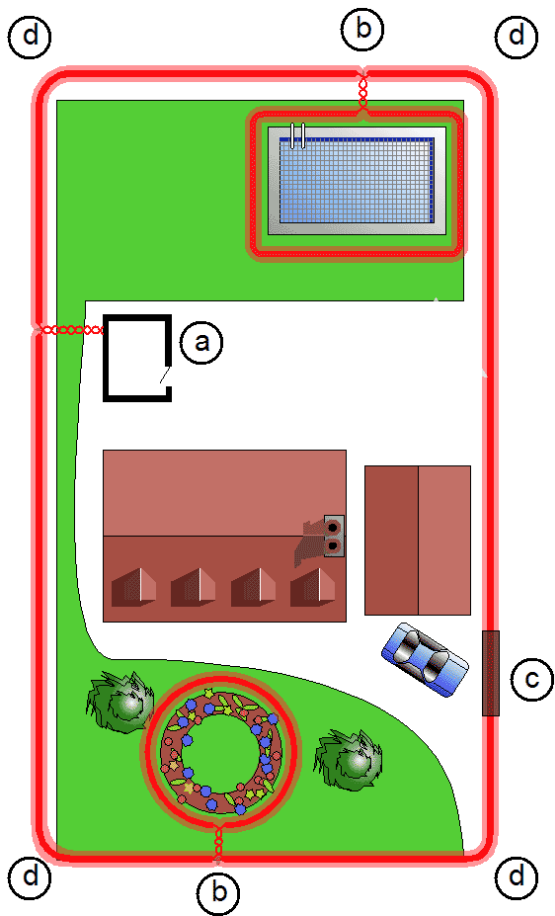
- a) power source
- b) the continuity of the loop and
- c) the nominal size of the zone

An ideal place would be next to the door through which the dog(s) go in and out of the house, or in an easily accessible shed or garage.

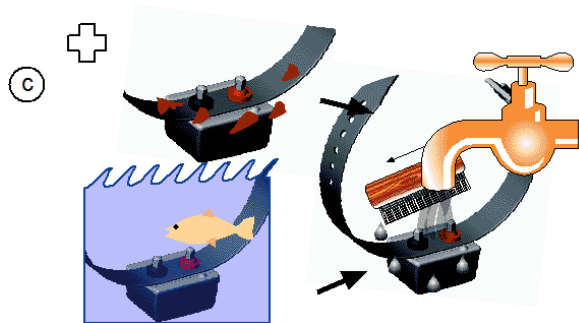
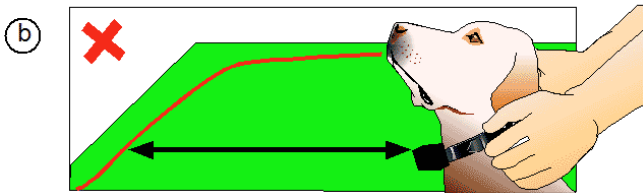
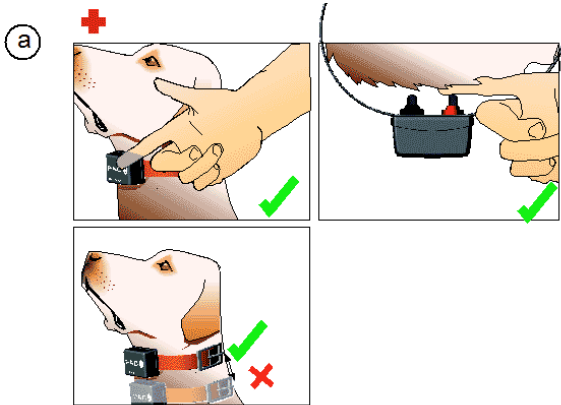




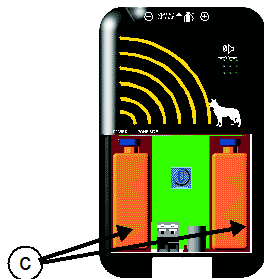
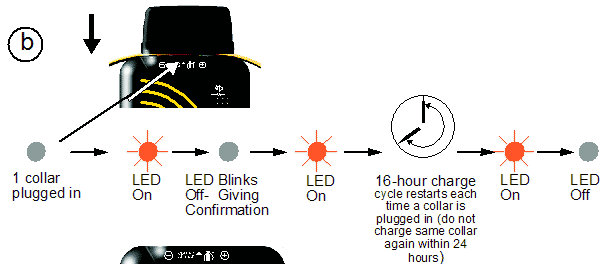
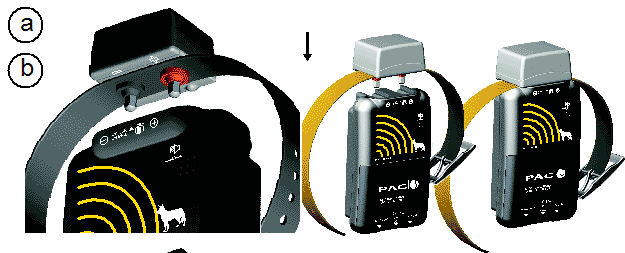
- a) Twist the loop-wire tails all the way from the perimeter to the Control Unit.
- b) Connect loop-wire tails (stripped by 1/4") to terminals by firmly pressing white levers towards the circuit board (NB these levers are necessarily quite stiff)
- c) Connect power supply from the mains adapter or car battery (using optional clip connector) to the control unit.
- d) Turn power on and check that Control Unit Power and Zone LED(s) illuminate.



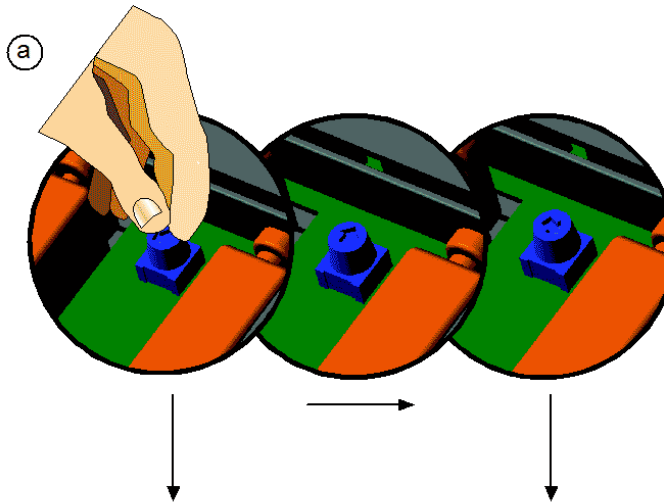
- a) Loop-wire tails are twisted all the way from the perimeter to the control unit
- b) Loop-wire can be twisted and re-opened to create a satellite loop around the swimming pool and/or flowerbed. Twisted section gives dog free access.
- c) The wire can be buried and sheathed in a protective, plastic conduit to run beneath the driveway. Signal is still active.
- d) Gentle curves on the corners reduce signal interference.



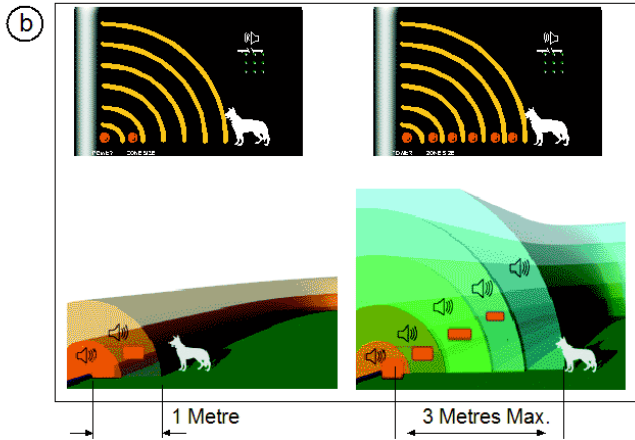
- a) Ensure that the collar is correctly and snugly positioned on the dog's neck. Inspect for skin irritation on a daily basis. For longhaired breeds use the more pointed probes.
- b) Never fit the collar to your dog when near to the zone!
- c) If soiled or exposed to salt water, wash with fresh water and brush.

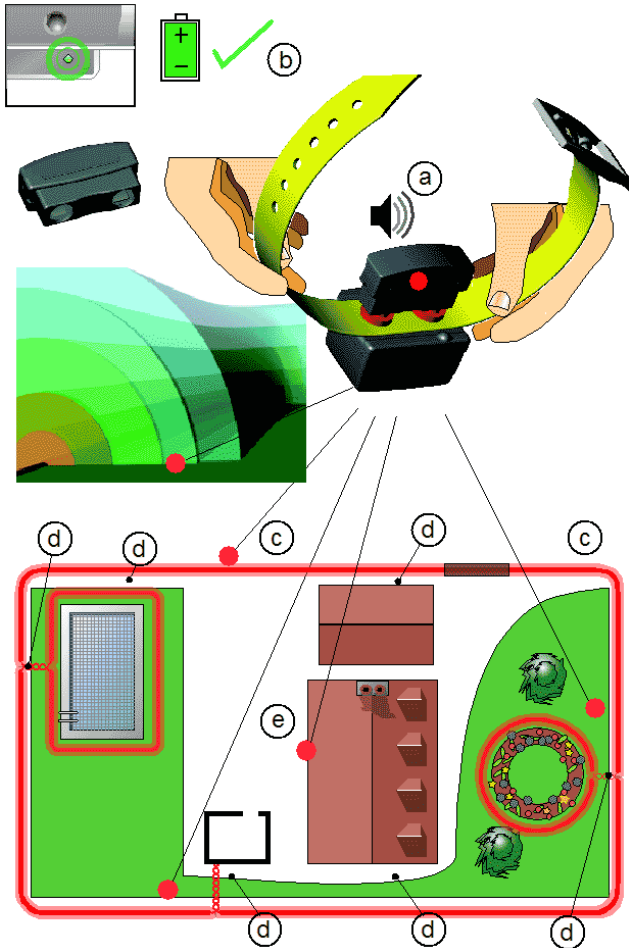


- a) Charge collar before use; then each 2 weeks during training; and every 2-4 weeks thereafter.
- b) Charging: 1) Plug collar firmly into dock (+ to +); 2) LED light ON; 3) LED blinks OFF (confirmation); 4) LED light ON again for full 16 hours charge; 5) LED light goes OFF (charge complete)
NB Charge cycle restarts automatically whenever collar is plugged in. Do not charge same collar within 24 hours.
- c) Two 9v batteries provide UPS (uninterrupted power supply) in the event of mains power failure. The mains power LED will flash when these standby batteries need to be replaced

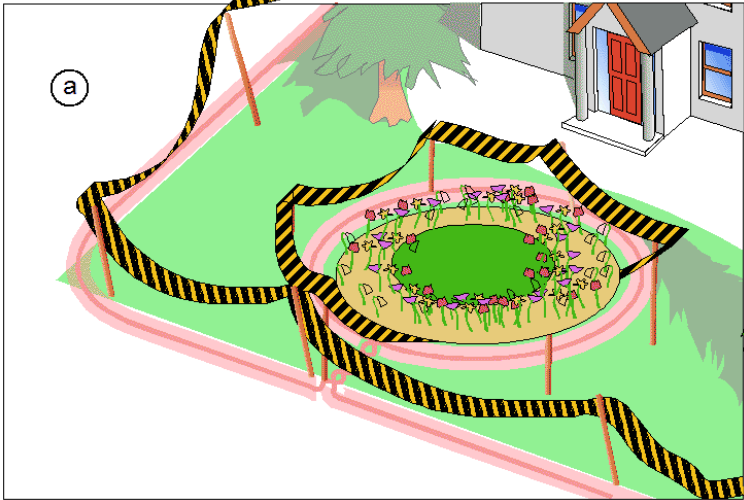
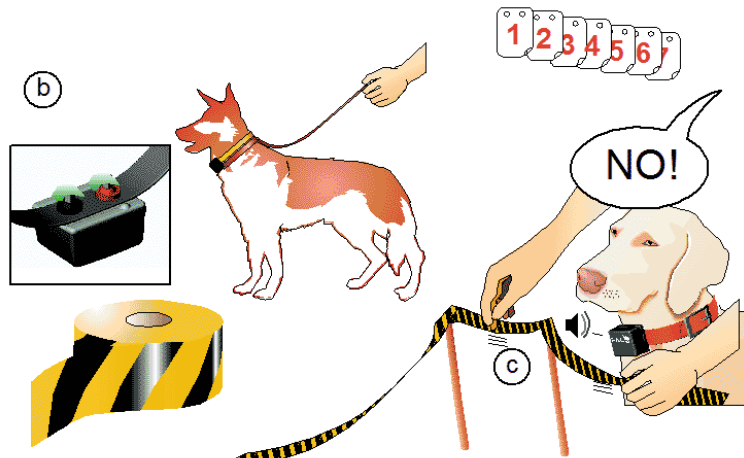


- a) The zone size is adjusted turning the blue potentiometer.(you may use a screwdriver to assist if you wish) Full anti-clockwise (7 o'clock) = min zone size. Turning gradually clockwise increases zone size up to (5 o'clock) = max zone size (about 3 metres)
- b) The zone LEDs will act as a guide to zone size. The unit has been factory preset to give a zone size of about 1 metre.



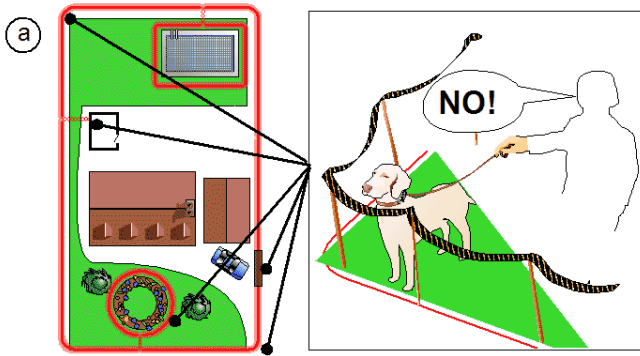


- a) The distance from the wire where the collar first emits a tone warning indicates the zone size.
- b) Check that the battery is fully charged
- c) Check at several points on the perimeter to ensure the collar and loop are working properly and consistently (i.e. similar zone size throughout).
- d) Check that the Zone size is OK for all critical locations (e.g. narrow access areas.)
- e) Test within the house and other 'inside' areas that there are no stray pick-ups.



Training-Phase 1 Setup and Introduction (1-3 days)

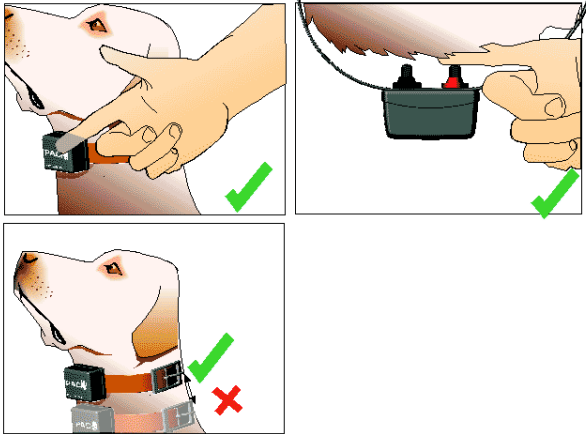
- a) Use marker flags or tape to define more easily any new or weak boundary lines.
- b) To prevent unintended stimulation, isolate the probes with plastic tape or rubber sleeves
- c) Dog wears both PAC (loosely fitted) and own collar (for attachment of lead)
- d) Introduce dog to boundary (especially weak points) to hear tone warning.
- e) Shout "NO", pull him back and praise him lavishly



Stimulation Training 1-2 Days)

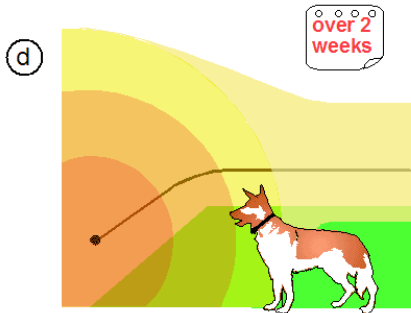
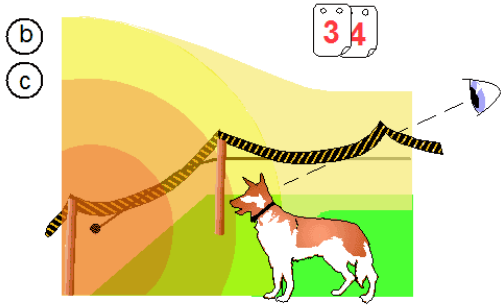
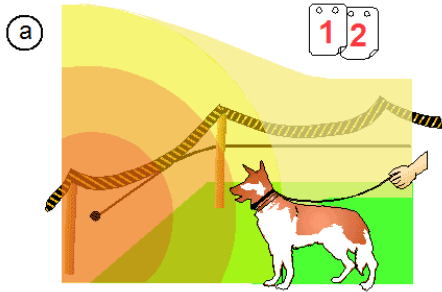
- a) Continue as in Phase I with dog on lead (but without probe isolators), concentrating on several weak areas.
- b) Let him linger long enough to receive a deterrent stimulation: repeat Phase I e
- c) Gradually tighten PAC collar to be a snug fit (see P18)
- d) Ensure PAC collar is fitted to narrowest part of his neck.

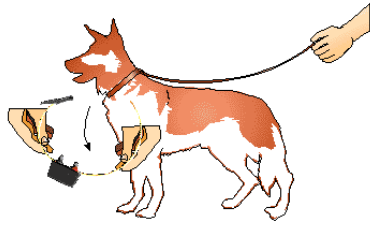
(b)



Proofing and Confirmation (1-2 days)

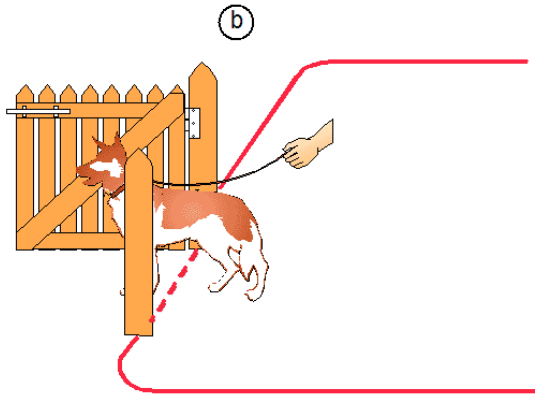
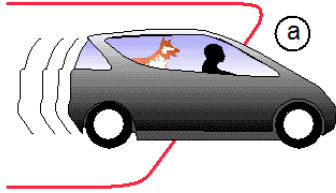
- a) Test success to date by distracting the dog near to the zone.
- b) Remove his own collar (and lead) freeing him to discover for himself
- c) Keep an eye on him till you are confident he is OK on his own.
- d) Gradually remove markers (over period of 2 weeks or more)





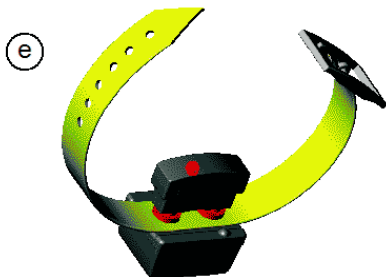
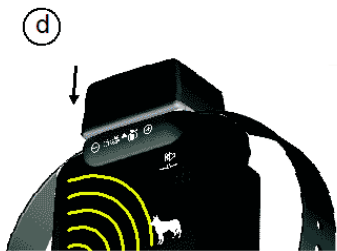
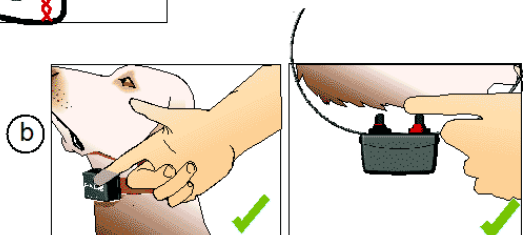
To avoid confusing the dog when taking him across the loopwire boundary, remove his PAC collar and either

- a) transport him across by car or, if practical, by
- b) physically carrying him, or
- c) take him through a normally-closed gate for his exit on a lead.

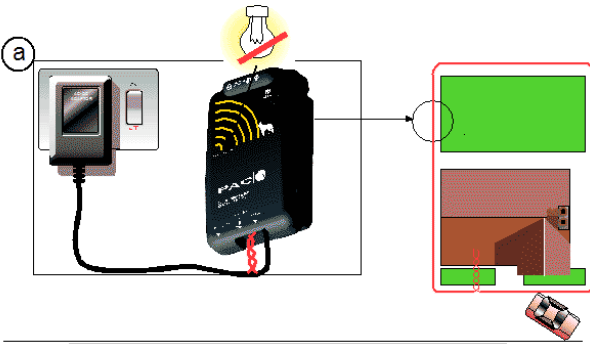


Under certain, extreme circumstances the processor in the collar might lock - off. Try to RESET it by briefly inserting the collar into the charging dock (+ to +).

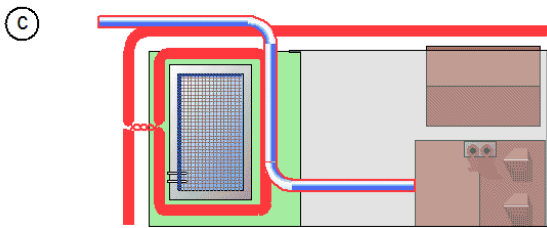
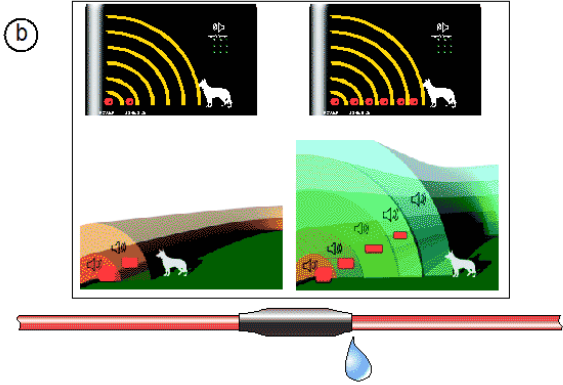


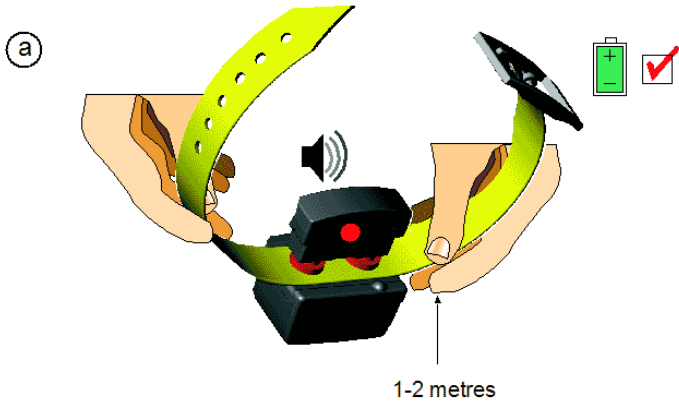


- a) Battery low/empty? – Recharge (see page 19).
- b) Collar fitted properly? – Tighten (see page 18).
- c) Longhaired dog? – Fit pointed probes (see page 3).
- d) Collar processor locked off? – Reset (see page 26).
- e) Use neon tester to check impulse stimulus. Polarity unimportant.
Remember, there are 2-seconds of grace in the outer sub-zone.

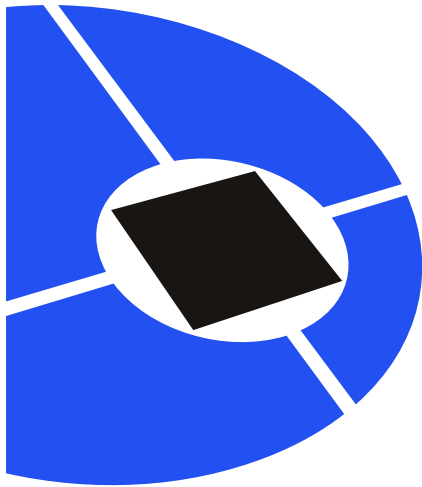


- a) Alarm Warning-note location of zone lights.? Check for Loop-wire continuity. Circuit broken? Find break and repair.
 b) Zone too small? Increase (see page 22).- Not possible? Check circuit resistance. If more than 1 ohm/100 metres length, check for corrosion on your joins (see page 13).
 c) Stray signals within permitted areas? Check Loop-wire run near to incoming services. Raise wire off ground or re-route away from such areas (see page 10) or relocate Control Unit (see page 15).

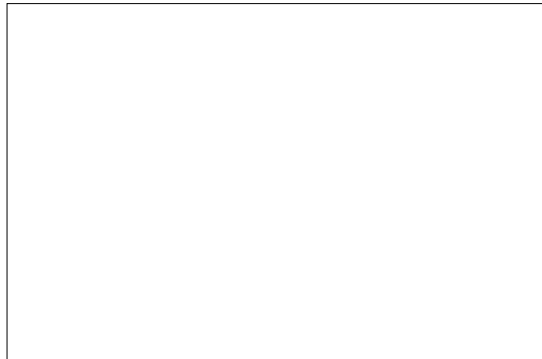




- a) Control Unit problems are very rare. Double-check collar/wire!
- b) Test with a short loop (say, 20 metres) separated out to make a circle. This loop should enable you to check both the Collar Unit and the Control Unit operations.
- c) In the event of mains power supply failure, the power ON LED + highest selected zone LED remain on,



Electronic Fence Systems



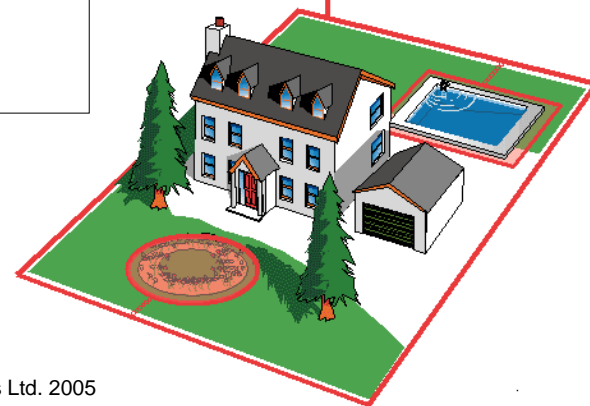
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Instruction Manual for your PAC FC4 Electronic Fence

