

Basic In-ground Pet Fencing System

SD-2000
Operation Guide



Thank you for purchasing this Containment System.

This electronic dog training system is among the safest, most humane and effective training products you can buy. Used properly, the collar's electronic stimulation serves as a distraction that your dog will find undesirable. By complying, your dog quickly learns to shut off the stimulation, thus gaining confidence in response to your commands.

Please take a few minutes to read the instruction manual prior to first use and retain the manual for future reference. This instruction manual contains important programming and set-up information to help your training proceed as successfully as possible. For best results follow these important safeguards:

IMPORTANT SAFEGUARDS

1. Obey all warnings contained in this manual.
2. The electronic dog collar is intended only for use on dogs over 6 months of age. Never attempt to use this product for any purpose not specifically described in this manual.
3. If you have any reason to believe that your dog may pose a danger to others, harm itself, or would react adversely after receiving stimulations from this containment system, you should not rely solely on this product to contain your dog.
4. Do not leave the collar on your dog for more than 12 hours per day.
5. Never perform set-up procedures when the collar is on your dog.
6. Monitor the system prior to use and after changing any settings to ensure that the unit is operating properly.
7. Do not use this system if you suspect the battery in the collar receiver is low.
8. Keep out of the reach of children.
9. Your dog will not respond to your system unless:
 - A. You train your dog and utilize the Training

tips section of this manual.

- B. The collar receiver has a working battery. Do not use if you suspect a low battery in it.
- C. The collar receiver is worn properly by the dog.
- D. The collar receiver is adjusted so that the probes are touching your dog's skin.
- E. The wall transmitter is on, connected to the containment loop wire, and producing a signal along the loop wire.
- F. The 12-volt, 200 mAmp, adapter is plugged into the wall transmitter and is connected to a 110-volt household outlet.

10. The following precautions should always be taken:

- A. Never service or install a system or any equipment during a thunder or electrical storm.
- B. Never install the wall transmitter where it could be exposed to the elements. Doing so will void the manufacturer's warranty.
- C. Monitor the wall transmitter periodically to ensure that the unit is operating properly and is producing a signal along the loop wire.
- D. Always remove your dog's collar receiver before making any adjustments to your system.
- E. Allow your dog to get used to the collar before you begin training. You want your dog to accept the collar as part of a routine, not to associate the collar with the stimulation.

11. To prevent the elimination of an adequate safe zone in your yard, any adjustments to the field width must be tested prior to using the system with your dog. Once the field width has been set and tested, turning the knob in a clockwise direction will increase the stimulation area and may eliminate the safe zone, thus causing stimulations to be present throughout your entire yard. If you have questions, please contact Innotek® at 1-800-826-5527, before using the system with your dog.

12. Realize that because individual dogs have unique temperaments, there is no way of knowing how your dog will react to its introduction to the system. For the safety of your dog, initial training should take place using a long leash to keep you in control of the situation. Also realize that an aggressive dog could turn against the handler upon receiving the stimulation. Therefore, if you feel your dog has an aggressive temperament and/or it has a history of aggressive behavior, you should consult a certified animal behaviorist before using this product.

13. Read all instructions before using this product. If you have any questions or concerns after reading this information, contact Innotek at 1-800-826-5527.

IMPORTANT NOTICE:

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 to 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.

Caution: Changes or modifications to any component, not expressly approved by Innotek, could void the user's authority to operate this equipment.

The term "IC:" before the radio certification number only signifies that industry of Canada technical specifications were met.

INTRODUCTION

Your new electronic containment system contains three major components: a wall transmitter, a collar receiver, and boundary wire.

The wall transmitter generates an electronic signal that is transmitted onto the boundary wire and is received by the collar receiver when your dog approaches the boundary wire. When the collar receiver senses your dog is approaching the containment boundary, it will sound a warning tone followed by a harmless, but effective electronic stimulation. When trained properly, your dog will quickly learn where its boundaries are.

This system has a range of up to 5 acres for containment. This package contains insulated boundary wire for enclosing a yard approximately one-half acre in size. Additional boundary kits can be purchased from Innotek by calling 1-800-826-5527. The system is also capable of containing multiple dogs simultaneously. Although it is sold with one collar receiver, additional collar receivers can be purchased from Innotek.

Naturally, you are eager to get started training your dog. But please take a few minutes to read this manual first. It contains important set-up information to help your training proceed as successfully as possible. Proper preparation and training will give your dog confidence for years.

COMPONENTS

- One water-resistant collar receiver with nylon strap and quick-release buckle
- One wall transmitter with installation hardware
- One 12-volt, 200 milliamp adapter to power the containment system
- One 6-volt alkaline battery for the collar receiver
- One test light for testing the collar receiver
- Fifty boundary flags
- One spool (500 feet) of 20 ga. insulated boundary wire
- Short and long probes (one set each)
- Black plastic probes for first containment lesson
- Two waterproof splices
- One probe wrench
- Owner's manual
- Instructional video

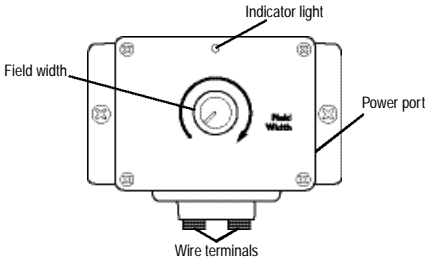
SETTING UP THE COLLAR RECEIVER

When you first set up the collar receiver, you will need to insert the supplied 6-volt alkaline battery in the battery compartment of the collar. Follow these steps for installing or replacing the battery in the collar receiver.

1. Place the collar receiver on a flat surface with the battery cap facing up.
2. Using a coin or a screwdriver, turn the battery cap counterclockwise to loosen and remove it.
3. Insert the 6-volt alkaline battery into the battery compartment with the positive (+) end closest to the battery cap.
4. Replace the battery cap by turning it clockwise until it is firmly seated.

CONTAINMENT OPERATION

SECTION 1. FEATURES OF THE WALL TRANSMITTER



The wall transmitter is your system's control center and works with the collar receiver and boundary wire to keep your dog safely contained within an area you select. The wall transmitter contains the following features:

A. Lightning / Surge Protection: This helps prevent damage to the wall transmitter if a power surge occurs or if lightning hits in the vicinity of your home. However, a close lightning strike may damage the unit. Therefore, Innotek recommends that you unplug the transmitter and disconnect the wires during storms. A lifetime-warranted lightning protection module can be purchased to protect the wall transmitter from both AC power surges and containment wire surges that occur during a close lightning strike. Contact Innotek for more information.

B. Wire Terminals: These easy-to-use, push-release wire terminals let you instantly connect or disconnect the boundary wire leads. Wires should be stripped about a half inch before connecting to the wall transmitter.

C. Power: The wall transmitter is powered by a 12-volt, 200 milliAmp adapter that plugs into a standard 110-volt household outlet and connects to the power connector port on the side of the wall transmitter.

D. Field Width Adjustment Knob: This knob controls the width of the signal field, the distance from the boundary wire to the place where the collar receiver first activates. Turning the knob clockwise increases the field width; turning it counterclockwise decreases it. Turning the knob completely counterclockwise turns off the wall transmitter power.

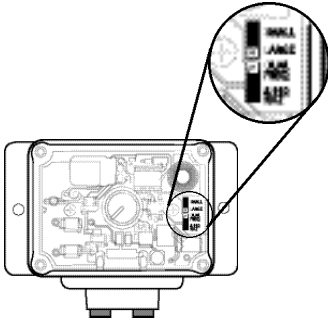
Important: Whenever a change is made using the adjustment knob, the field width must be tested and verified before using the system to contain your dog. Refer to Containment Operation, Section 2.F. Testing the System.

E. Indicator Light: The indicator light above the Field Width Adjustment Knob tells the following information.

1. Containment Mode = Solid Red Light: A solid red light on the wall transmitter means the transmitter is properly powered, both wires are connected, and the wire forms an unbroken, continuous loop. **NOTE:** The wall transmitter light only indicates continuity. If you have a loose splice or nicked wire, the red light or a flickering light may still show, but you may notice reduced or no field width. If this situation or a wire break should occur, refer to Containment Operation, Section 6.A. Troubleshooting.

2. System Malfunction = No Light: No light tells you one or more of the following: No or both wires are not properly connected; both wires are connected but the wire is broken or nicked at some location in your installation; the wall transmitter is off; the power has been disconnected; or the wall transmitter has malfunctioned. Refer to Containment Operation, Section 6. Troubleshooting.

F. Yard Size Jumper: The yard size “jumper” allows you to customize the wall transmitter for your installation. The wall transmitter comes from the factory with the jumper set for a small yard that utilizes less than 1,000 feet of boundary wire. It can be changed to accommodate a large yard that has more than 1,000 feet of boundary wire in the installation. One 500-foot spool of boundary wire is included with your system.



To access the Yard Size Jumper, turn the Field Width Adjustment Knob to the “Off” position. Remove the four cover screws, the Field Width Adjustment Knob, and the front cover from the wall transmitter. The Yard Size Jumper is located on the right side of the circuit board. When the jumper covers the two pins next to SMALL, the wall transmitter is set for a small yard; when the jumper covers the two pins next to LARGE, the wall transmitter is set for a large yard. THE JUMPER MUST BE IN PLACE FOR THE CONTAINMENT SYSTEM TO FUNCTION.

When the yard size jumper is appropriately placed for your installation, replace the wall transmitter cover, secure it with the four cover screws, and install the Field Width Adjustment Knob with the pointer in the “Off” position.

G. Dual Frequency Jumper: The dual frequency jumper located inside the wall transmitter is labeled DUAL FREQ and 8.192 KHZ. It should always be set for 8.192 KHZ. Do not move this jumper unless instructed to do so by an Innotek representative.

H. Stimulation: The stimulation delivered in the containment system is preset. There are three special features that increase the effectiveness for containing your dog.

1. Pre-Stimulation Warning Tone: When the dog reaches the edge of the signal field in the yard, it will hear a pre-stimulation warning tone that lasts about two seconds. If the dog does not return to the “safe” part of the yard, it will receive a continuous stimulation until it does re-enter the “safe” part of the yard.

2. Run-Through Prevention: The receiver automatically increases the stimulation when the dog continues more than 1/3 of the way through the signal field. For example, if the signal is detected 12 feet from the wire and your dog enters the signal field, this feature is activated when the dog is eight feet from the wire. At this point, the dog automatically receives the High level of stimulation. The feature acts as an override to the pre-stimulation warning tone so the dog cannot “run through” the system without activating a strong stimulation. As the dog retreats into the yard, the stimulation will reduce to the preset stimulation level and then turn off as the dog returns to the safe part of the yard.

3. Over-Stimulation Prevention: In the unlikely event that your dog becomes “trapped” in the signal field, this feature limits stimulation duration to 10 seconds. The system shuts off for 10 seconds before resuming stimulation for another 10 seconds. This pattern will repeat for a maximum of three cycles, a duration of 60-seconds. Removing the receiver from the containment field will reset the unit and allow normal operation.

SECTION 2. INSTALLING THE CONTAINMENT SYSTEM

A. Creating the Layout

When selecting a layout for your containment system, keep it simple; complex installations are more difficult for dogs to learn. Here are some key points to remember:

- Consider all the obstacles - gardens, play areas, driveways, sidewalks, pools, porches, and water crossings.
- Utility companies must be contacted to mark the buried utility lines.

- To avoid future wire breaks caused by landscaping efforts, the lawn should never be aerated in the vicinity of the containment wire.

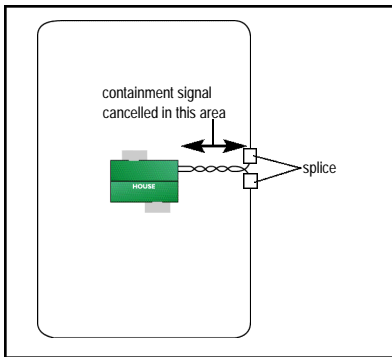
- For your dog's safety, it is recommended to keep the containment wire at least ten feet from the street.

- Keep in mind that you will want at least an 8- to 12-foot containment field (8 to 12 feet on each side of the wire).

- It is possible to cancel the containment signal in a portion of the containment loop by twisting the wires 2 to 3 inches apart. This allows the dog to cross the twisted containment wire in safe areas of the yard, as illustrated below, without causing your dog's collar receiver to deliver stimulation.

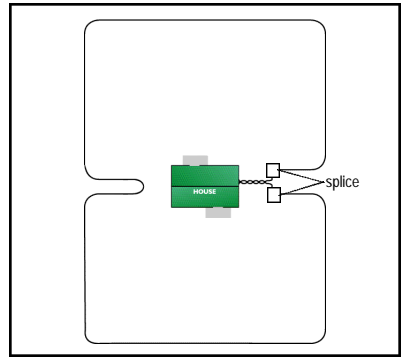
Described below are several popular containment installations. You may find these helpful in planning the layout that will best meet your needs.

The perimeter loop is the most common installation. The wire is placed just inside the property line and usually forms a square or rectangle.



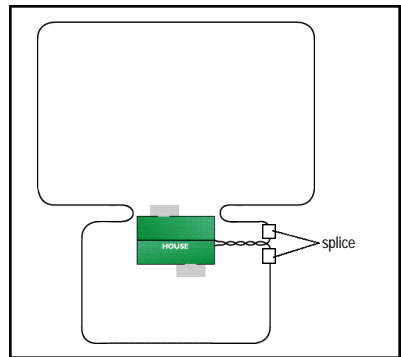
Perimeter Loop

The hourglass design allows your dog to be contained in either the front or back yard. This layout is similar to the perimeter loop, except the wire is run close to the house on two sides. When positioning the wire parallel to itself as it goes toward the side of the house from the perimeter, keep it a distance equal to the field width plus three feet from itself. To prevent your dog from playing in the side yard, keep the wire a distance equal to the field width less one foot from the house.



Hourglass Design

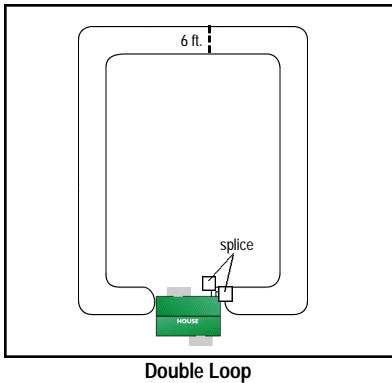
The back yard loop encloses the back yard and uses the back portion of the house as part of the barrier. After laying wire on the three sides of the back yard, bring the wire a distance of the field width less one foot from the back corner of the house to prevent your dog from playing in the side yard. When running the containment wire parallel to the side and around the front of the house, keep the wire a distance from the house equal to the field width plus three feet to prevent sending stimulation through the walls of the house. Continue placing wire at this distance from the home until it reaches the entry hole leading to the wall transmitter. Encircling the house contains your pet if he bolts out of the front entrance or the garage door. These areas are usually not flagged.



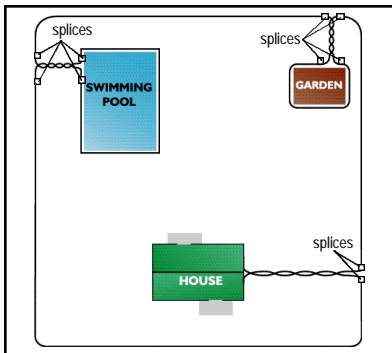
Backyard Loop

A double loop installation will provide a barrier in the back yard without running wire into the front yard. Beginning at the wall transmitter, lay the containment wire to the nearest perimeter and proceed around the back yard until you are at the

opposite side of the house. When at a distance from the corner of the house equal to the containment field width less one foot, do a hairpin turn and continue positioning the wire a distance of the field width plus three feet away from itself. Proceed around the back yard until you return to the opening leading to the wall transmitter. This design will keep the back entrances to the house free from stimulation.



Your containment installation can be customized to protect areas such as gardens, pools, and specific landscaping. To accomplish this, encircle the protected area with containment wire. Twist a length of boundary wire equal to the distance between the protected area and the containment perimeter. Use waterproof splices to connect the twisted wire to the containment wire at the perimeter and at the protected area. The containment signal is cancelled where the twisted wire is located thus allowing your dog to run around the garden or pool without receiving stimulation. The containment signal around the protected area will keep your dog out just as the perimeter containment wire keeps him in.



Once you are satisfied with the layout of your containment system, it is time to choose a proper location for the wall transmitter.

B. Installing the Wall Transmitter

1. Selecting a Location for the Wall Transmitter - Select a location for the wall transmitter that is within five feet of a standard, grounded 110-volt household outlet and that will provide easy access to an exterior wall where the containment wire can penetrate. If possible, avoid plugging the unit into an outlet that is protected by a ground fault current interrupter (GFCI). The GFCI will not interfere with the normal operation of your system, but in rare cases lightning strikes may cause a GFCI outlet to trip (disconnect power), and you would need to reset the GFCI to restore household power to the system. Also check the location where you want to bring the outside wires through the wall and into the wall transmitter to avoid electrical or telephone wires, television cables, or water pipes. Even after checking, there may be unknown wires or pipes inside the wall. Therefore, consider going through a windowsill or doorframe whenever possible. Mark the desired location with a pencil.

The transmitter may be mounted on a hollow wall or directly to a wall stud using the provided mounting hardware. The wall transmitter will withstand freezing temperatures, but it is not waterproof. Therefore, it is best to locate the transmitter in a dry, enclosed area where the temperature range will be between 32°F and 110°F (0°C to 45°C). Preferable locations are the garage, laundry room, office, or finished basements. For ease in accessing the wall transmitter, mount the transmitter at least four feet from the floor.

2. Installing the Wall Transmitter - After selecting a location for the wall transmitter, use a pencil to transfer the screw hole locations on the side of the wall transmitter onto the wall. Make sure there are no electrical wires or other objects directly behind the mounting-hole locations that may be damaged when the mounting screws are installed.

For hollow wall installations, drill 1/4-inch diameter holes at the marked locations and tap in the

hollow wall fasteners with a hammer. For installation of mounting screws directly into a wall stud, drill 3/32-inch diameter pilot holes at the marked locations. Position the wall transmitter with the screw holes over the pilot holes and secure with the supplied screws.

At the pre-determined location where the containment wires will enter the home, drill a 1/4-inch hole from the inside through the wall or corner of a windowsill or door frame. A slight downward angle will help the wire to curve downward outside and keep water out.

A masonry bit can be used to drill through cinderblock or through the joint crack on brick or stone walls. A regular 1/4-inch drill bit can be used if the house is of wooden construction with vinyl or aluminum siding. In these cases, you may want to drill from the outside for exterior aesthetics.

C. Planning the Placement of the Boundary Wire

With the wall transmitter installed and the hole drilled for the wires, begin positioning the boundary wire according to your layout. Listed below are some helpful instructions and tips.

1. Amount of Wire - Your system includes 500 feet of insulated 20-gauge, solid copper core wire. For yards requiring more wire, boundary kits are available from Innotek (1-800-826-5527). It is important that the same gauge wire be used throughout the installation. Here are some examples of wire coverage.

Acres	Linear Feet Needed
1	850
2	1200
3	1500
4	1700
5	1900

The above figures assume a rectangular layout and actual footage may vary.

2. Placement of the Wire - For the system to work properly, the wire must make one continuous loop. The signal is transmitted from one terminal of the transmitter, through the wire, and back to the other terminal. When placing the

wire, keep in mind that you will want at least an 8- to 12-foot containment field (8 to 12 feet on each side of the wire). Avoid making passageways too narrow or your dog may be hesitant to use them (i.e. along the sides of a house).

3. Twisted Wire - Prepare and place twisted wire from the transmitter to the exterior loop wire. The twisted wire cancels the signal and allows your dog to cross this area. It can also be used to connect the containment system to internal areas that should be protected, like gardens, pools, and special landscaping.

To twist the wire, cut two equal lengths and hold them side by side. Put one end of both wires in a power drill. With a helper holding the other ends of the wires, turn the drill on and spin the wires until the twists are 2 to 3 inches apart. The tighter the twisting of the wire, the better the signal cancellation. The wire can also be twisted manually.

4. Rounding Corners - Use gradual turns at the corners with a minimum of 2.5-foot radius. This will produce a more consistent containment field and avoid confusing your dog in these areas.

5. Crossing Driveways, Sidewalks, and Water Features - When crossing an asphalt driveway, make a 1/2-inch deep cut across the driveway using a circular saw and masonry blade. Place the wire in the crack and seal with asphalt sealant. On driveways and sidewalks, if an expansion joint is available, simply place the wire in the joint and seal with an outdoor caulk. When crossing gravel, bury the wire at least 3 inches deep. Use a piece of garden hose or plastic PVC piping to protect the wire. In water, anchor the wire with large rocks. Protect the wire with a piece of garden hose or plastic PVC piping. The wire does not have to be buried, but to minimize the potential for wire damage, it is advisable to bury it at least one inch underground.

D. Placing the Boundary Wire

1. Listed below are important tips about placement and burial of the boundary wire:

- Do NOT bury the loop within 10 feet parallel to electrical, telephone, cable TV, or other buried wire in the yard.
- Do NOT bury one section of wire within 10 feet of another section or the signal may cancel.
- Do NOT bury your wire within 10 feet of a neighboring containment system's boundary wire.

2. Position the Wire in the Yard - The above recommendations may cause you to modify your layout, but it will be time well spent. When your layout is finalized, place the wire around your property according to your diagram. The wire loop should begin and end at a perimeter location closest to the location of the transmitter. This will minimize the amount of twisted wire needed to connect the boundary wire to the transmitter.

DO NOT BURY THE WIRE UNTIL YOU HAVE TESTED THE SYSTEM AND ARE SURE IT IS WORKING PROPERLY. TAKE CARE NOT TO NICK OR SCRAPE THE WIRE INSULATION DURING THE INSTALLATION. AN INTERMITTENT SIGNAL OR NO SIGNAL MAY OCCUR.

E.Making the Final Connections

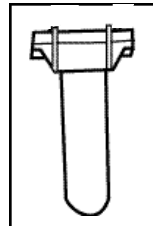
After the wall transmitter has been installed in a protected area and the boundary wire is in place, the final connections must be made.

1. Bringing the Outside Wire to the Wall Transmitter - From the outside, push the twisted pair of wires through the hole in the exterior wall. A small piece of electrical tape wrapped around the end of the wire will keep it from untwisting in the wall. Push a sufficient length of wire through the wall to reach the wall transmitter. Strip about 1/2 inch of insulation from each wire and insert them into the wire terminals on the wall transmitter by depressing the tabs on the terminals and inserting one wire in each terminal. Position the wire along the wall as desired and push excess wire back out through the hole in the wall.

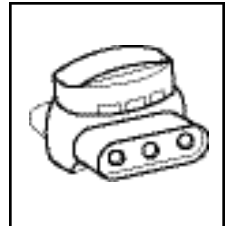
2. Splicing to the Boundary Wire - Pull the twisted pair wire to the perimeter location of the boundary wire. Make sure that the wire length is adequate to route wire along the outside wall and bury before cutting. Splice the ends of the twisted wire to the ends of the boundary with the supplied waterproof splices.

WARNING: Use only the waterproof splices (approved for direct burial) supplied with this system. If additional splices are required, they may be purchased from Innotek. Using non-waterproof electrical tape, solder, or twisted wire nuts will cause an intermittent signal or disable the system. The waterproof splices included in your containment system are designed to provide a sealed connection between the wires.

Waterproof Splices—Your containment system includes one of two different styles of waterproof splices that are designed to provide a sealed connection between the wires. Refer to the following illustrations to identify the splices included with your system.

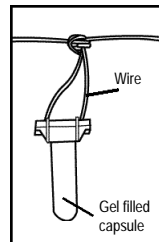
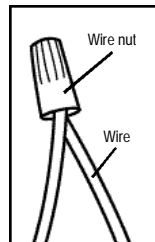


Gel-filled capsule splice

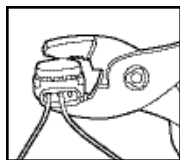


Black cap splice

Gel-Filled Capsule Splice—To use the gel-filled capsule splice, strip 5/8 inch of insulation from the ends of the wires you are joining. With the ends of the wires even and together, place the wire nut over the wire ends and turn the wire nut clockwise until it is securely fastened. Snap open the hinged lid of the gel-filled capsule and insert the wire nut as deeply as possible into the waterproof gel. Snap the lid shut, making sure the wires exit the splice on either side. Tie a knot in the wires as shown in the diagram to prevent them from pulling out of the gel-filled capsule when the wire is buried.



Black Cap Splice—To use the black cap splice, a single boundary wire is placed into one of the three holes of the spliced. The insulation on the boundary wire should not be stripped before



placing wire into the holes. The other single boundary wire is placed into one of the other holes. That leaves one extra hole that is not used. A pair of pliers

should be used to press down on the top black part of the splice.

3.Plugging in the Power Adapter - Make sure the Field Width Adjustment Knob is in the OFF position. Plug the power adapter into a nearby 110-volt household outlet and the other end into the power port on the right side of the wall transmitter.

4. Checking Out the Installation - Make sure your dog is not wearing the collar and no one is touching the collar probes. Turn the Field Width Adjustment Knob clockwise until a click is heard. This turns the system on. The LED on the wall transmitter should be solid red to indicate the boundary loop is properly connected. If the red light does not illuminate, refer to Containment Operation, Section 6. Troubleshooting.

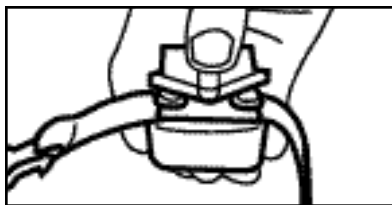
F. Testing the System

With the boundary wire in place and properly connected and the collar receiver battery installed, it is time to set the containment field and test the system. **THE COLLAR RECEIVER SHOULD NOT BE ON YOUR DOG WHEN THE SYSTEM IS TESTED.**

1. Setting the Yard Size - If you are using a total boundary wire length of 1,000 feet or less, set the Yard Size Jumper to SMALL. Otherwise, set it to large. Refer to Section 1.F for setting the jumper.

2. Adjusting the Containment Field - The width of the containment field is adjusted using the transmitter's Field Width Adjustment Knob. Start with a low setting. Move the knob to the 9 o'clock position and test the field width of the system. **For the safety of your dog, the field width of the system must be tested whenever an adjustment is made to the containment field.** Please follow the instructions below.

3. Testing the Field Width of the System - Select a section of straight boundary wire that is at least 50 feet long and perform the contain-



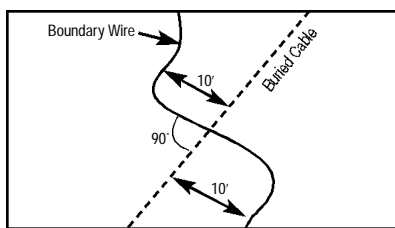
ment field test at the center of the selected section. To test the containment field, attach the test light to the probes and slowly walk the collar receiver toward the boundary wire. The collar receiver should be held at the height of your dog's neck with the probes pointed upward. Listen for the warning sound and watch for the test light to illuminate. The wider the containment field, the less chance the dog can run through the field.

The containment field should extend at least 8 to 12 feet on each side of the wire. This helps make the Run-Through Prevention more effective. To increase the field width, turn the Field Width Adjustment Knob clockwise and recheck the distance the signal is broadcasting from the wire. To decrease, turn counterclockwise. Repeat this procedure until you are satisfied with the location of the stimulation throughout the installation.

Note: When testing the field width, the collar receiver may demonstrate the over-stimulation prevention safety feature described in Containment Operation, Section 1.H.3. Over-Stimulation Prevention.

4. Verifying the Safe Part of the Yard - Once the field width is set, slowly walk the collar receiver around the entire boundary perimeter maintaining a distance from the wire that is at least three feet farther than the field width setting selected in the previous step. Verify the collar receiver does not activate. Inconsistencies in the field width may occur where there are buried electrical, telephone, cable TV or other wires or metallic objects in the yard. The containment signal from the boundary wire can couple onto the buried wires and extend the signal into the safe part of the yard. Repositioning the boundary wire in these areas can minimize the unwanted signal coupling; however, you may not be able to completely eliminate the effect. The unwanted signal coupling can be

minimized by orienting the boundary wire so that it is perpendicular to the buried wire for approximately ten feet on each side of the buried wire (see graphic below).



5. Burying the Boundary Wire - You may need the following tools for efficient installation: Straight-edged spade, pliers, and wire cutter/stripper. If you plan to run the wire across concrete, you will also need a caulk gun, silicone caulking, and a circular saw with a masonry blade.

a. Ensure the system is turned OFF at the wall transmitter.

b. Burying the wire - To bury the wire, dig about 3 to 4 inches deep where the wire first enters the ground near the transmitter and continue around the path of the loop wire. A 30° to 45° angle cut made with a flat blade spade will be the easiest to close and heal. Allow for slack in the wire throughout the boundary wire loop to compensate for expansion and contraction due to temperature changes.

When covering a large area, you may wish to use a lawn edger or trenching machine to cut into the ground. However, we recommend that the wire be placed in the trench by hand. A commercial wire-placement machine may break the wire or damage the wire insulation.

c. Checking the system field width and placing the flags - Repeat Testing the System (Containment Operation, Section 2.F.3.) until you are satisfied with the field width setting. As you approach the boundary wire, place a flag at the perimeter where the receiver first detects the warning tone. This will add a visual cue to the audio warning tone and help the dog learn the boundary. Continue placing the flags at 6- to 8-foot intervals around the entire containment area using this technique.

If the field adjustment knob position is altered, you must test the containment field for the desired setting and reposition the flags as necessary.

d. Plugging the holes - With the twisted wire in place near the wall transmitter, caulk and seal the interior and exterior holes to prevent damage from moisture and insects.

SECTION 3. USING THE CONTAINMENT SYSTEM

A. Fitting the Collar to Your Dog

1. **Probes** - Use short probes for shorthaired dogs. Use long probes for longhaired dogs. Finger tighten the probes, then turn one additional revolution with the probe wrench. Do not over-tighten the probes.

2. **Collar Strap** - Place the collar around the dog's neck with the receiver box under the chin. Fit the strap as snugly as possible, without restricting breathing. There should be enough room to fit only one finger between the strap and the dog's skin at the back of its neck. Make sure both probes contact the dog's skin. Remove the collar and trim any excess strap length, leaving 4 to 6 inches. Then seal the end with a lighted match for 1-2 seconds. This will prevent fraying.

B. Important Notes About the Collar

1. Always use the rubber insulators between the collar strap and probes to provide insulation in damp conditions.

2. If needed, a small amount of hair removal or thinning will improve probe contact with the skin. Do NOT shave the dog's neck.

3. Check your dog's neck weekly for skin irritation.

4. This product is not recommended for dogs under six months of age.

5. Check the tightness of the probes regularly and frequently to prevent loss of the receiver box. Lost receivers are not covered under manufacturer warranty.

6. To prevent accidental stimulation inside the home, remove the collar from your dog's neck when it comes inside.

7. Check the collar receiver once a week to make sure the collar receiver battery has adequate power.

8. Test the collar receiver in the containment field weekly to verify that the system is functioning properly. To test, hold the supplied test light to the collar receiver probes. Holding the receiver by the case, NOT by the probes, walk into the containment field. With the receiver held at the height of your dog with the probes facing upward, verify the warning tone is present and the test light illuminates.

SECTION 4. TIPS FOR CONTAINMENT TRAINING

To get the most out of your containment system, keep these tips in mind:

A. The collar receiver must be properly fit to ensure adequate contact between your dog's skin and the receiver probes. Place the collar high and snug on your dog's neck.

B. Never leave the collar receiver on your dog for longer than 12 hours a day. Leaving the collar on your dog for extended periods could result in irritation around the neck or at the site where the probes make contact with the skin.

C. Begin training when your dog has reached four to six months of age.

D. Always make sure the collar is functioning properly BEFORE putting it on your dog. Verify the containment transmitter is operating properly and the field width is appropriate. To test the containment field, refer to Containment Operation, Section 2.F.3. Testing the Field Width of the System.

E. Remove any metal collars or tags from the dog when it wears the electronic collar. Metal collars and tags can cause intermittent operation and/or prevent the dog from feeling the stimulation.

F. Place the training flags at the perimeter where the warning tone is heard. This will add a visual cue to the audio warning tone and help your dog learn the boundary.

G. Never call or pull a dog into the containment field.

H. Keep training sessions brief (10 to 15 minutes) and stop the session before your dog has lost interest. Take a break to rest or play.

I. Do NOT become overly confident that your dog has become conditioned sooner than expected. Complete all of the steps in the Training Plan before allowing your dog to run free.

J. ALWAYS praise your dog for good behavior.

SECTION 5. THE TRAINING PLAN

Review the video that is packaged with the system. It offers a visual step-by-step guide to training your dog.

The goal of containment training is:

- To teach your dog to identify and retreat from the boundaries.
- To make the training fair--so your dog will understand the consequences of leaving the yard.
- To make the training fun--so your dog will enjoy staying and playing on your property.

This training plan is divided into four parts: Training Equipment, The Schedule, Rules and Routine, and Training Lessons.

A. Training Equipment

You'll need a training collar. Choose either a flat or slip collar. Use a flat collar on a mild mannered dog. A slip collar works best on a hard to handle or easily distracted dogs.

You'll need a lead. This training plan recommends that you work with a 6-foot, 15-foot, or retractable lead.

B. The Schedule

The six dog-training lessons take place over the course of about 4 weeks. For total success it is necessary to complete the entire course.

Practice sessions are 10-15 minutes each, 2 times per day. Short, fun sessions are more effective. Anything longer will cause your dog to mentally tire.

	M	T	W	T	F	S	S
Week 1	Retreat			Distractions			
Week 2	Off	Lead	Supervised				
Week 3	Off	Lead	Unsupervised				
	Flag Removal Every Other Day						

Lesson 1: The Retreat Pattern - 6 Sessions.

Lesson 2: The Stimulation - 1 Session.

Lesson 3: Distractions - 7-8 Sessions.

Lesson 4: Off Lead, Supervised - 1 Week

Lesson 5: Off Lead, Unsupervised - 2 Weeks

Lesson 6: Flag Removal - Every other day until gone.

Use the calendar only as a guideline. Your dog's behavior tells you when to move to the next lesson.

C. Rules and Routine

The rules and routine of the typical training session include putting the collar receiver and lead on your dog making sure the collar receiver is high on your dog's neck and snug with the probes touching the skin.

Start every session with play and praise. Make sure the dog is comfortable--have fun! Laugh! and praise him.

Most importantly, review the previous day's lesson to see if your dog is learning on schedule. Do not proceed to the next step until your dog understands what is expected. Do boundary work at locations all around the property. End the session with relaxing play.

Bring your dog indoors and remove both the training collar and the collar receiver. If you're training more than one dog, train each dog at separate training sessions.

D. Training Lessons

Lesson 1: The Retreat Pattern

Before you start to train, make sure the collar receiver is functioning and the battery has adequate power. Remove the standard probes and install the black plastic probes. The black plastic probes ensure that your dog does not receive a stimulation until he learns to retreat from the boundary.

Put the collar receiver on your dog. Make sure the wall transmitter is turned on.

Lesson 1- Day 1. The goal for Day 1 is to introduce your dog to the boundary and to help him understand he should retreat when he hears the warning sound. Depending on the lead there are several ways to do this.

Using a 6-foot lead, casually walk your dog to the boundary. When the dog reaches the containment field let go of the slack in your left hand, immediately spin to your right, and instantly grasp the lead under your right hand and retreat. Your dog will continue forward and then feel the tug. As he runs back towards you, praise him.

Using a retractable or 15-foot lead, casually walk your dog toward the boundary. Your dog may indicate he hears the warning sound by tilting his head or twitching his ears. The instant the dog hears the warning sound, give a tug on the lead and bring him back.

On a retractable lead, press the brake. This will redirect the dog back into the safe area. Have fun and praise him.

On **days two and three** repeat the lesson of Day 1.

As the training sessions progress through the three days of lesson one, you'll see that your dog will begin to anticipate the signal and retreat without prompts.

Day three is successful if your dog retreats with no prompt from you or he refuses to approach the boundaries. Remember to praise, praise, praise proper behavior.

Lesson 2: The Stimulation

A dog may be tempted to break the rules. To prevent this, he must understand that there are consequences for inappropriate behavior. When your dog retreats from the boundaries on his own or

won't go into flagged areas, he is ready to receive the stimulation.

Before you begin this lesson, remove the black plastic probes and install the standard probes. Make sure the wall transmitter is turned ON and functioning properly.

Use a 15-foot or a retractable lead. Have a family member run through the containment field. Let your dog follow. The distracter must not stop, look back, or call the dog. After your dog receives the stimulation, pull him back to you and lavish him with loud, happy praise. Try it again. If he responds correctly, praise him, then move to another boundary area.

Lesson 3: Distractions

If your dog is avoiding the boundary, he is ready for distractions. This is the most important but often shortchanged part of the training. This lesson teaches your dog that he must resist temptations. When practicing distractions, never call or pull your dog into the containment field.

Most dogs have a hard time generalizing concepts so you can't assume that if your dog won't chase a ball he won't chase a bicycle. You have to go through a list of distractions that will tempt your dog the most. Dogs will learn specifics. If your dog likes to chase, distract with balls, bikes--anything that moves. If your dog is attracted by children, family members, other dogs--use them as temptations.

Lesson 4: Off Lead, Supervised

After several sessions of distractions, your dog should be ready for off lead play. You must stay in the yard for off lead training.

In fact, it's wise to spend more quality time in the yard with your dog. The more your dog stays on the property for the first month, the less confused he will be.

If you wish to take your dog off the property, remove the collar receiver and take him off and back onto the property in the car.

Lesson 5: Off Lead, Unsupervised

When your dog resists distraction of any kind, both on and off lead, he can be left unattended in the yard but observed from inside the home. This freedom should be brief at first. You must frequently go out and check on your dog. Over the next several weeks, unsupervised freedom can be gradually increased.

Before and after each unsupervised session, you must continue the play and praise routine so that your dog understands that the yard is a happy place to be.

Lesson 6: Removing the Flags

After 2 weeks of successful unsupervised containment, you can begin removing the flags. Start by removing every other flag every other day until all are gone.

The leads, trainers, flags and the collar receiver signals are all training clues for your dog. During the last three weeks of training --one by one--all but the collar receiver will be removed.

As the training clues are removed it is essential that you continue to use distractions to make sure your dog retreats from the unmarked boundary.

The stimulation teaches the consequences of the improper response. Know your dog and what tempts him. Gradually extend the amount of unsupervised freedom, and finally remove the flags when you are confident that your dog is fully trained.

If you have any questions about your containment system, or about training your dog, please review the video included with this product. If you still have questions or concerns, please call Innotek.

SECTION 6. TROUBLESHOOTING

Always remove the collar from the dog before doing any troubleshoot testing.

The following table identifies the solutions to common problems associated with pet containment systems. If a problem occurs, first check this table and try to determine what the problem may be. If, for any reason, your system still does not operate as described in this manual or if you have any questions or problems not included in this manual, please call Innotek at 1-800-826-5527.

Dog Response Problem	Possible Solutions	Reference
1. Dog appears to not “feel” the stimulation	<p>A. Collar fit is not tight enough to make good skin contact.</p> <p>B. Make sure black probes are not on collar receiver. Use standard probes.</p> <p>C. Probes are not long enough to make skin contact.</p> <p>D. Dog’s hair is too long or thick. Trim the hair or order special thick-haired probes from Innotek.</p> <p>E. Receiver battery needs to be replaced.</p> <p>F. Verify the wall transmitter is on and functioning properly.</p> <p>G. Remove any metal collars and tags from the dog.</p>	<p>Page 10</p> <p>Page 10</p> <p>Page 10 Page 3</p> <p>Page 3</p> <p>Page 11</p>
2. Dog appears to “feel” the stimulation, but still constantly enters the containment field.	<p>A. Collar fit is not tight enough to make good skin contact.</p> <p>B. Field width setting is not wide enough.</p> <p>C. Remove any metal collars or tags from the dog.</p> <p>D. Additional training may be needed.</p>	<p>Page 10 Page 9</p> <p>Page 11 Page 11</p>
3. Dog receives an intermittent signal.	<p>A. Use of non-waterproof connections.</p> <p>B. A nick or scrape in wire insulation. Perform the Wire Break Location Test Procedure.</p>	<p>Page 8</p> <p>Page 15</p>
4. Dog acts fearful of going into the yard.	<p>A. Dog received stimulation too early in training. Stop training and play with dog in safe area. Resume training when dog is no longer fearful in safe area.</p> <p>B. Field width set too wide.</p> <p>C. Check yard’s safe area for unexpected containment signal due to signal coupling.</p>	<p>Page 11 Page 9</p> <p>Page 9</p>
5. Dog receives stimulation in the safe part of the yard.	<p>A. Field width set too wide. Decrease the field width and re-verify the detection distance. Change field size jumper to SMALL if necessary.</p> <p>B. Check for buried cables, wires, or metallic objects in the yard.</p> <p>C. Reposition boundary wire away from fixed metal objects such as metal buildings, chain-link fences, large satellite dishes, etc.</p> <p>D. Move large metal objects such as swing sets and trampolines farther away from the boundary wire.</p>	<p>Page 9</p> <p>Page 7</p> <p>Page 9</p> <p>Page 9</p>
6. Dog receives stimulation inside the home.	<p>A. Remove the collar receiver when the dog enters the home.</p> <p>B. Field width too wide.</p>	<p>Page 10 Page 9</p>

Dog Response Problem	Possible Solutions	Reference
6. Dog receives stimulation inside the home. (continued)	C. Reposition the boundary wire farther from the house. D. Place wall transmitter away from areas where the dog may be confined. A low level containment signal is radiated from these components and can cause the collar receiver to deliver stimulation.	Page 9 Page 6

Wall Transmitter Problems	Possible Solutions	Reference
1. No indicator light on the wall transmitter.	A. Verify the Field Width Adjustment Knob is not in the "Off" position B. Check that the adapter is plugged in properly C. If system is plugged into a GFCI outlet, check to see if the circuit has been tripped. Reset GFCI circuit if required. D. If possible, check the voltage of the power adapter using a digital multimeter. It should read greater than 12 volts DC. E. Check the yard size jumper. If removed, the system will not function. F. Perform Transmitter Lop Test Procedure to locate and correct the problem. G. Perform the Wire Break Location Test Procedure and correct the problem.	Page 3 Page 8 Page 6 Page 4 Page 16 Page 16
2. Indicator light on wall transmitter is flickering.	A. Boundary wire has a nick in the insulation. B. A boundary wire connection is loose.	Page 3 Page 8

Collar Receiver Problem	Possible Solutions	Reference
Collar receiver does not appear to be operating in containment field area.	A. Verify the transmitter is turned on and the indicator light is solid red. B. Perform the field width test using the test light and determine if the test light is illuminating. C. Perform the System Test Procedure to determine which component is malfunctioning.	Page 9 Page 9 Page 15

A. System Test Procedure

The system test procedure is used to determine the probable cause of system problems that have not been addressed elsewhere. You will need a 6-foot piece of boundary wire for use as a test loop wire. Strip 1/2 inch of insulation from both ends of the wire. To perform the System Test Procedure, please follow these steps:

1. Remove the receiver collar from your dog prior to testing the system.
2. Set the transmitter internal Yard Size Jumper to SMALL.
3. Make a test loop using a piece of wire at least 6 feet in length.

4. Disconnect the existing boundary wire from your wall transmitter.

5. Insert the two ends of the test loop wire into the wall transmitter.

6. Note the original position of the Field Width Adjustment Knob and turn the Field Width Adjustment Knob to a minimum setting (9 o'clock).

7. Place the test light on the collar receiver. With the collar strap in hand, back up to be outside the field and approach the test loop. Make a mental note of the distance between you and the wire when the collar activates.

8. Turn the Field Width Adjustment Knob to a medium setting (10 o'clock).

9. Back away from the wire and approach it again. Determine the distance between you and the wire when the collar activates. The distance should be greater on the 10 o'clock range setting than on the minimum setting.

10. If more than one collar receiver is used on the system, repeat the above test on each collar.

11. Interpreting the Results

- If there is no light on the transmitter with the test wire in place, the wall transmitter is malfunctioning.
- If the red light is solid on the wall transmitter, but the collar does not activate on the test loop wire, the collar receiver is not working.
- If the red light is solid on the wall transmitter and the collar receiver is activating at different distances on the test loop wire, the problem is in the yard wire.

B. Transmitter Loop Test Procedure

The Transmitter Loop Test Procedure should be performed if the transmitter indicator light is not functioning properly. You will need a short 6-foot piece of boundary wire with 1/2-inch of the insulation stripped from both ends. Verify the AC adapter is plugged into the transmitter and into a functioning AC outlet, the transmitter Field Width Adjustment Knob is not in the OFF position, and all boundary wire connections at the transmitter

are properly connected. If the indicator light is still off, continue with the following steps.

1. Remove the existing twisted wire pair from the transmitter connector by pushing red and black release levers on the connector and remove the two wires from the transmitter.

2. Insert the ends of the 6-foot wire into the connector on the transmitter and recheck the transmitter indicator light.

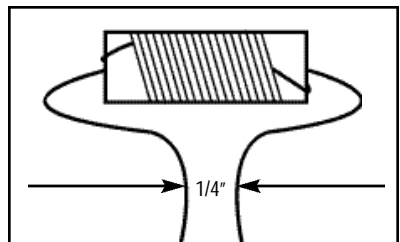
a. If the indicator light is on, the problem is in the boundary wire. Check for visible damage to the wire at the entry into the house. If none is observed, perform the Wire Break Location Test Procedure to find and correct the wire break.

b. If the indicator light is still off, the malfunction is in the transmitter or the AC adapter. Contact Innotek at 1-800-826-5527 for assistance.

C. Wire Break Location Test Procedure

To locate wire breaks in the loop installation, use a wire break location device called an RF Choke, which is available at Radio Shack (Catalog #273-102; 10 mH, 2 Amp). You will also need a portable AM radio. Once you have these items, follow these steps:

- Disconnect the transmitter power by unplugging the adapter from the outlet.
- Disconnect the boundary wires from the wall transmitter.
- Bend the leads of the RF Choke into the shape in the illustration.



4. Gently wrap the RF Choke leads around the boundary wire (stripped) ends (one to each side).

5. Plug the boundary wire and RF Choke leads into the wire terminals on the wall transmitter.

6. Plug the adapter into the outlet.

7. Set a portable AM radio to AM-60 or AM-600.

8. Set the Field Width Adjustment Knob high enough to obtain a signal on the portable radio when holding the radio over the containment boundary wire.

9. The signal should be absent on the twisted wire portions because twisting cancels the signal. When you reach a single wire area of your boundary, listen for pulsating static on the radio.

10. Hold the radio 1 to 2 feet off the ground and swing the radio over the wire as you walk along the boundary.

11. If the static stops, weakens, or changes pitch, mark the spot with a flag or stick. No sound indicates a complete break in the wire. If the signal fades or changes in pitch, look for a nick in the insulation.

Note: Do not confuse straying from the boundary wire path for a wire break. Make sure you follow the known location of your boundary wire.

12. Continue around the remaining boundary and mark each signal change with a flag or stick.

13. After completing the entire boundary, return to the marked spots. Examine the wire for 3 to 4 feet in each direction.

14. Replace the wire using the same gauge wire used in the original installation and use waterproof splices to make the connection.

Contact Innotek if additional wire and waterproof splices are needed.

SECTION 7.

GENERAL MAINTENANCE TIPS

Your system requires very little maintenance. The collar receiver is water resistant and should not be immersed in water. To remove dirt, simply wipe with soap and water. Never place the collar receiver in a dishwasher.

The wall transmitter is not waterproof and must be protected from the weather.

Do not attempt to dismantle or repair any components of the system; this will void the manufacturer's warranty in full. These components contain computerized circuitry that should be serviced only by an authorized expert.



IF YOU HAVE ANY QUESTIONS ABOUT THE USE OF YOUR SYSTEM, DO NOT RETURN IT TO THE PLACE OF PURCHASE. CALL

INNOTEK AT 800-826-5527 OR 260-467-5000 (US).

SPRING / SUMMER HOURS:

MONDAY THROUGH FRIDAY 8 A.M. TO 5 P.M.

SATURDAY 8 A.M. TO 4 P.M. CENTRAL TIME

FALL / WINTER HOURS: MONDAY THROUGH FRIDAY 8 A.M. TO 5 P.M.

SATURDAY 8 A.M. TO 4 P.M. EASTERN TIME

LIMITED LIFETIME WARRANTY

Innotek warrants that this product will be free from defects in material and workmanship, under normal use, for a period of one year from the date of the original retail purchase. If you are not satisfied with the performance of this product, please call 800-826-5527 for return instructions. Please do not return the product to your retailer. After one year from date of original consumer purchase, a prorated parts and labor schedule provides additional warranty coverage. Please call 800-826-5527 for details. This product is also covered by a 30-day money-back guarantee. If you are not satisfied with the performance of

this System, please call 1-800-826-5527 to obtain instructions on how to return your System and receive a refund.

During the initial 12-month period, Innotek will either repair, or replace any defective components, subject to a \$15.00 processing fee. Prior to returning any component to Innotek, the purchaser is urged to call 1-800-826-5527 to obtain instructions on returning components.

This Limited Warranty covers only the components manufactured by Innotek. Innotek neither assumes, nor do we authorize any other person to assume for us, any other liability in connection with the sale of Innotek products. The Innotek Limited Warranty shall not apply to any product that has been subject to accident, neglect, alteration, or misuse. This Limited Warranty is void if any attempts are made to alter or repair any component prior to returning it to our facility. This Limited Warranty specifically excludes lost parts or components, broken probes, damage as a result of dog chews, or lightning damage.

THE REMEDIES AS SET FORTH IN THIS LIMITED WARRANTY SHALL BE THE EXCLUSIVE REMEDIES AVAILABLE TO THE ORIGINAL RETAIL PURCHASER, AND INNOTEK SHALL NOT BE LIABLE OR RESPONSIBLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THE PRODUCT COVERED BY THIS LIMITED WARRANTY OR CAUSED BY ANY DEFECT, FAILURE OR MALFUNCTION OF THE SYSTEM, WHETHER A CLAIM IS BASED UPON WARRANTY, CONTRACT, NEGLIGENCE OR OTHERWISE. Some states do not allow the exclusion of incidental or consequential damages, so this limitation may not apply in your particular state. This limited warranty gives you specific legal rights, and you may have other rights which vary from state to state.

To the extent permitted by applicable law, THIS LIMITED WARRANTY SPECIFICALLY EXCLUDES ANY AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE. Otherwise all implied warranties are limited in duration to one year from the date of original retail purchase. THERE ARE NO OTHER WARRANTIES, EITHER EXPRESS OR IMPLIED, OF ANY KIND OR NATURE WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF.

This product is not a substitute for traditional obedience training. Innotek does not warrant the effectiveness of this product due to variances in canine personality, temperament and influences beyond the control of Innotek.

If a warranty claim is to be made, please call 1-800-826-5527 to obtain a Return Materials Authorization Number (RMA) and instructions on how to return the product. Defective components or the complete product should be sent by a trackable carrier such as insured U.S. mail, or UPS to the address specified below. All returns are subject to a \$15.00 processing fee and such processing fee must be included with the returned product.



**1000 Fuller Drive
Garrett, IN 46738
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Toll Free: 800-826-5527
www.innotek.net**

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Warning 1: Occasionally a dog cannot be trained to respond to a remote trainer or containment system. Sometimes even a properly trained dog may disobey a command. Therefore, Innotek, its distributors, and dealers cannot guarantee that the system will, in all cases, keep the customer's dog from disobeying commands. Accordingly, if the customer has reason to believe that his or her dog may pose a danger to others, harm itself, or would react adversely after receiving stimulations from this system, the customer should not rely solely on this product to train or contain his or her dog.

Warning 2: The user of this system is hereby warned to be alert for growling, snarling, biting, or other aggressive behavior by a dog using the system, especially during training. If any such behavior is observed, particularly if it appears to be associated in any way with the system, the customer should immediately stop using the system and remove the collar receiver from the dog. Consult a certified animal behaviorist.

