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# Boomer The Robotic Puppy Operating Manual

Boomer the Robotic Puppy uses the latest in a software and hardware from the laboratories of the Institute of Robotic Technology. Boomer's computer brain is programmed to simulate the action and reactions of a real puppy. Better still, Boomer will actually tell you what is on his mind!

Thanks to his Tekno 2.0 artificial intelligence program, Boomer will let you know how he is feeling and provide feedback on the care you provide. Boomer knows how long it's been since he's been fed and is quick to remind you when he is need of some attention.

Boomer has state-of-the-art sensors that allow him to "see" and "hear" and "feel" around him. With these sensors and Boomer's powerful computer brain, Boomer can determine if it is getting dark, if the lights in the house suddenly turn on, if someone's talking to him, if there is movement around him, if someone has put his ball in his mouth, if there is a loud noise (like a knock at the door) - and even if someone has picked up

his bone!

Boomer features some amazing new mechanical movements. He will sit on his hind legs when he is tired and will even stand up and beg when he is hungry!

Boomer really likes to be cared for by a loving owner. The better that YOU take care of Boomer, the happier he will be. In short, Boomer is programmed to respond just like a real pet Robotic Puppy!

#### Understanding Boomer

By the following instructions in this manual (or using the web site http://www.tekno-robot.com/) you will be able to provide the best life possible for Boomer... and lead to greater enjoyment in your new role as Cool Pet Owner.

# 1. Removing Boomer From The Package

Boomer is held in place by two plastic columns under his belly. They are attached to the cardboard bottom of the package by two thumbscrews. Undo the thumbscrews and carefully remove Boomer from the

cardboard. Discard the thumbscrews, as they are no longer needed. Pull the two plastic latches out from each of the columns. Put Boomer's Bone in a safe place (Fig 1) so you can feed him later!

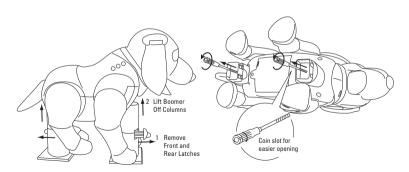


Fig 1

### 2. Initial Set Up

After Boomer is free from the package, pull the Tab out of his bottom (Fig 2) to begin his program set up. Turn the On/Off switch off and then on again. When you hear a "beep" it means Boomer has come to life!

### 3. Understanding Boomer's Programming

Boomer uses the latest in Tekno 2.0 artificial intelligence software. He has the intellect of a real puppy. Puppies aren't perfect and, from time to time, he may have a mind of his own. Sometimes Boomer will respond to your commands, and other times he will do what he wants to do. It all depends on how he feels and how you are trying to communicate with him.

Like all pets, Boomer needs attention. Yell out his name and clap your hands to let her know you're there. Tap him on his head when he is lonely. Feed him regularly with this Bone. Play with him with his ball. Change his batteries when he stops working. Just think of him as a real Robotic Puppy and he will be your friend for life!

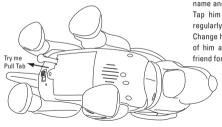


Fig 2

# 4. Boomer's Inputs, Sensors And Outputs

To understand how Boomer works you must know about his input devices. (Fig 3) Some of these are in

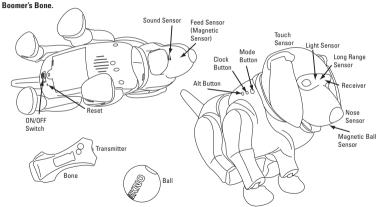


Fig 3

Boomer's LIGHT SENSOR measures to changes in light levels.

Boomer's LONG RANGE SENSOR tells him that

there is someone moving in the area in front of him.

On the top of Boomer's head is hidden **TOUCH SENSOR**. When you touch this area, Boomer knows

to voices and other noises

that you are petting him.

Boomer's **SOUND SENSOR** allows him to respond

When Boomer's BONE is placed under his mouth, the **MAGNETIC FEEDING SENSOR** lets Boomer know he is being fed. You'll know he is enjoying his meal

when you hear crunching or slurping sounds.

Inside Boomer's Bone there is a special

TRANSMITTER that sends and invisible signal to

Boomer's **RECEIVER**. When Boomer's computer sees this signal, Boomer knows he is about to be fed.

There is a special **MAGNETIC BALL SENSOR** near Boomer's mouth to let him hold his Ball and throw it.

Boomer's  $\bf NOSE$   $\bf SENSOR$  tells him that he is should be sniffing something touching his nose.

The MODE BUTTON is used to program Boomer

and teaching him tricks.

The **CLOCK BUTTON** is used to program Boomer's internal clock functions

The **ALT BUTTON** is used to help to set Boomer's functions

Boomer powers up or shuts down when you move the  $\ensuremath{\text{ON/OFF}}$  SWITCH.

The **RESET BUTTON** refreshes Boomer's brain back to the beginning of his programming.

#### 5. Boomer's Basic Functions

Turn the On/Off switch to the ON position. You will hear a "beep". Boomer is alive!

Boomer will begin to sense what is going on around him automatically. If you yell his name or clap, he may start to bark or whine or begin to walk around looking for excitement while checking out his environment

#### Keeping Boomer Happy

Boomer needs attention and stimulation to be happy. Just like a real Puppy, it's important not to forget to take care of him. Talking to him or clapping your hands will meet with many different reactions. If he is in a great mood, he might say "What a great day". If he is full of energy, he will say: "Let's go, go, go, GO!" and start to walk. However, if he feels he is not getting the attention he needs, he might ask where you've been. If he gets tired or bored, he will say he's lonely or may ask you to help him find his ball. It all depends on how you play and pay attention to him.

Boomer loves to play with his ball. You can place it

up to his mouth (SEE: Playing with Boomer's ball) and he will carry it around or throw it. The more you play and exercise Boomer, the happier he will be.

Boomer will get tired at the end of a hard day. When the lights go down low or he walks into a darkened area, Boomer will sit down and yawn or sigh. After a minute or so he will start to snore and then fall into a deep sleep. You can wake him up by turning on the lights or making some noise. He will be very happy to see you again!

to see you again! Boomer loves to eat! Remember to feed him once a day (or more if you prefer). Boomer always likes a mid-day snack during the day. In fact, he may actually ask "How about some grub?" when he is hungry. You can take care of his needs by place the tip of his Bone near his MAGNETIC FEEDING SENSOR (Fig 4). You'll hear some crunching noises. After you take the bone away he'll thank you to let you Fig 4

know he's one satisfied robot puppy! If you don't feed him often enough, don't be surprised if he says "How 'bout some grub?" or "Time for my treat!" It's always best to feed Boomer when he's hungry.

Boomer always likes to be petted! (Fig 5) Touch him on the top of the head on his Touch Sensor. Boomer will say "Thank you!" or "That's was good, that was good!" or any number of other sayings.



### How You Can Tell Boomer Is Unhappy

Boomer's voice will let you know by his barks, whines, or cries. If you hear him beg for attention (How 'bout we go for a walk!), or start to feel blue (I'm so lonely!) it's time to turn his frown upside down. To make him happy again, just feed him or talk to him, or play with him.

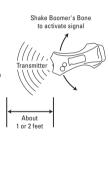
Boomer does not like to be left alone. If you haven't been around him as often as he'd like, he will become bored and might say: "They left me behind!" That's a good indication that he needs some more attention from you.

When you return to play with him, in most cases he will be extremely happy to see you again. He may say "I'm so happy to see you!" and all will be forgiven.

# Making Boomer Beg For His Bone

Boomer loves to show off and beg for his bone. To make him beg, pick up his bone and point the TRANSMITTER towards Boomer's eyes. (Fig 6) Next, shake it until Boomer responds. You can be up to 2 feet away when you try this (If Boomer is not in direct sunlight). Boomer will sit and then stand on his hind leas!

After Boomer has started begging, it's always nice to give him a taste of the bone. Place the Bone next to his mouth the same way as when you feed him. He will make some crunching noises and thank you. If you don't feed him, Boomer will get a little annoyed with you. He might say: "You've got to be kidding..." and start to walk away. It's always best to feed Boomer whenever he has completed his begging trick.



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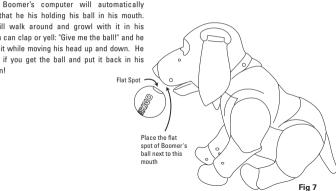
# Playing With Boomer's Ball

This is one of the things Boomer loves the most. Sometimes, he will even ask you to find his ball for him

"Where's my ball? It was just here!"

Place the flat part of Boomer's ball near his mouth

recognize that he his holding his ball in his mouth. Boomer will walk around and growl with it in his mouth. You can clap or yell: "Give me the ball!" and he may throw it while moving his head up and down. He really likes if you get the ball and put it back in his mouth again! Flat Spot



# When Boomer Gets Sleepy

Just like a real puppy, Boomer likes to sleep during a busy day. Occasionally, you will hear him yawn. If he is left alone for a few minutes, he will sit down on his

hid legs (*Fig 8*) start to Snore and go to sleep.

Boomer will also go to sleep as nighttime

approaches. Boomer's **LIGHT SENSOR** will let her computer know it's late at night. You can wake Boomer up from this heavy sleep by talking to him, knocking on the door, making some loud noises, or turning on the lights.



Fig 8

# 6. Teaching Boomer His Everyday Tricks

Boomer is amazingly smart - but he needs **YOUR** know- how to program him so he can perform his tricks. Follow these steps **EXACTLY** and you will be

able to make Boomer astound your friends and family with your combined talents.

Here are the tricks he can do:

Trick name	What Boomer will do	How to program him	How to make him do the trick	How to make him stop doing the trick	
Sing And Dance	Play music and move in an animated pre-programmed pattern with the music.  Boomer will perform to one of three different songs.	Press and Hold the Mode button for 3 seconds until you hear a 'beep'. Press Nose button and hear '2 Beeps'. Press Nose button again and hear '3 beeps'. Press Nose button again and hear '3 beeps'. Press Nose button again and hear '4 beeps'. Press Mode button and hear a High, Low and High Beep, Duch the Touch sensor it time to select each of the 3 songs. Hear 1, 2 or 3 beeps. Press Mode button to confirm which song you want Boomer to perform.	Clap your hands or yell out "Dance Boomer!" to start his routine.	Wait until Boomer finishes. He will say: I'm so cute!" when the routine is over.	
Sit on command	Boomer will sit down and bark on your command and then stand back up again.	Press and Hold the MODE button for 3 seconds until you hear one "beep". Press the MODE button again and hear a High, Low, and High beep.	Clap your hands or yell out "Sit Boomer!" to start his routine.	Touch Boomer's Touch Sensor on the top of his head. He may wag his tail and he will thank you.	

Trick name	What Boomer will do	How to program him	How to make him do the trick	How to make him stop doing the trick		
Walk on command	Walk for several seconds on your command and then stop.	Press and hold the MODE BUTTON for 2 seconds until you hear one "beep". Touch the TOUCH SENSOR in Boomer's head and hear a High, Low, and High beep sound.	Clap or yell "Walk Boomer!" Boomer will begin to walk and then stop. You can command him again and again.	Touch Boomer's Touch Sensor on the top of his head. He may wag his tail and he will thank you.		
Shake hands	Boomer will stand to offer you his paws on your command.	Press the MODE BUTTON for 3 seconds until you hear one "beep". Press NOSE BUTTON and hear "2 Beeps". Press the NOSE BUTTON again and hear "3 Beeps". Press MODE BUTTON and hear a High, Low, and High "Beep"	Clap or yell: "Give me your pawl" Boomer will sit to and then stand on his back legs. Gently shake one of his paws.	Say "Good Dog Boomer!" or clap your hands. Boomer will start to walk and will be in his normal mode again.		
Speak	Boomer will Bark on your command.	Press TOUCH SENSOR for 3 seconds until you hear a "Beep".	If SOUND SENSOR Triggered.	Touch Boomer's Touch Sensor on the top of his head. He may wag his tail and he will thank you.		
Rude Noises	Make occasional rude noises and excuse himself.	Press MODE BUTTON for 3 seconds until you hear a "beep", Press NOSE BUTTON and hear 2 "beeps". Press the MODE BUTTON again and hear the "rude noise" sound.	Boomer will make these noises all by himself for about 10 minutes.	Wait 10 minutes and Boomer will stop all by himself.		

# 7. Advanced Programming Tricks

Now it's time to really concentrate. Boomer's advanced tricks are a bit more difficult to program but well worth the effort.

#### Trick Name: Alarm Clock

Boomer will wake up at exactly the time you want him to and start to get you to wake up too.

To program Boomer, you must teach him to tell time.

Press the **CLOCK BUTTON** for **3** seconds until you hear a **"Beep"**. You are now in CLOCK SET MODE.

Next, you need to set the hours of the day. To do that, you press the ALT BUTTON., Check your clock to see the current time of the day and press the ALT BUTTON the correct number of times to match the hour. If you hear low-pitched "beeps", it means you are in A.M. (midnight to noon). If the beeps are a high pitch, it means P.M. (noon to midnight).

Press the **CLOCK BUTTON** when you have finished and you will hear the number of beeps that equal the number you pressed. If you set the wrong time, you

must press turn him off and on again and start over. If the number of beeps is correct, press the MODE BUTTON again and hear one "beep". You have just set

the Hours of the day.

To set the minutes, look at the current time and divide the minutes into 5-minute segments. Each five-minute segment will be equal to 1 "beep". For example, 15 minutes equals 3 "beeps" 25 minutes, equals 5 "beeps", etc. Press the ALT BUTTON (listen for the beep) once for each 5-minute interval of time. Press the CLOCK BUTTON when you have entered the correct minutes and you will hear the number of beeps you have entered. Press the MODE BUTTON one more time. You will hear one "beep" and Boomer will return to his normal programming.

#### To Set The Alarm

In setting Boomer's alarm, press the MODE BUTTON and the CLOCK BUTTON for 3 seconds. You'll hear a high, low, and high beep. You're now in Alarm Mode.

To select a wake-up time, repeat the same process for setting the clock. Boomer will wake you up and ask you to play with him.

You do not need to press any of her buttons to make her stop.

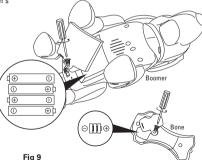
You can stop the Alarm without shutting Boomer On and OFF. Simply press and HOLD DOWN the **ALT BUTTON** for 3 seconds. You will hear a series of high, low, and high pitched\* beens. NOTE: If the batteries are removed or the RESET button is pressed or the ON/OFF SWITCH is moved to the OFF position, you must reset both the Clock and the Alarm by repeating the procedures.

## 8. Replacing Boomer's Batteries (Fig 9)

Boomer runs by battery power. When his batteries are low, he will not respond to any of your commands. To replace the batteries, unscrew the small screw on the BATTERY DOOR on Boomer's belly. Pull the Battery door out. Replace the batteries in the orientation shown. USE ONLY ALKALINE BATTERIES. Never use Rechargeable Batteries or these will damage Boomer's electronic circuits.

Boomer's bone also contains batteries. These will last a very long time. If Boomer does not respond to his bone, replace Boomer's batteries first. If the problem still exists, try replacing the batteries in the bone.

- 4 "AA" batteries required Boomer.
- 3 "AG13" batteries required Bone.



#### **BATTERY CAUTIONS:**

IMPORTANT: Only parents should replace batteries.

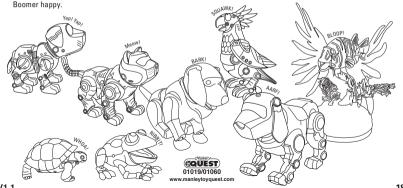
- · Do not use rechargeable batteries.
- Do not attempt to recharge non-rechargeable batteries.
- Insert batteries as marked and always follow the toy and battery manufacturer's instructions.
- Use only the same or equivalent type of battery as recommended.
- · Do not short-circuit the supply terminals.
- Do not mix old and new batteries. Do not mix different types of batteries, such as alkaline, standard (carbon-zinc), rechargeable (nickel-cadmium).
- · Always remove exhausted or dead batteries from the product.
- Remove batteries from the product before extended storage.

# 9. Trouble Shooting Tips

Difficulty	Solution				
Boomer keeps crying and then wants to go to sleep.	He is in a place that is too dark. His computer thinks it is nighttime. Place him in a brighter area and he will return too normal.				
Boomer does not respond to me when I call him.	You may be speaking too quietly. Try to get closer to him, speak louder, clap your hands, or tap the tabletop. He is always listening.				
Boomer fell and his ears or legs popped off.	This is normal under extreme conditions. Simply pop the pieces back on. Try to avoid this from happening as it may cause permanent damage.				
I shake the bone but Boomer won't beg.	There can be several reasons:  1) Try to get a little closer to Boomer.  2) Make sure the transmitter is pointing to Boomer's eyes.  3) Make sure Boomer is not in direct sunlight.  4) Replace the batteries in the bone.				
I've lost Boomer's Bone and now I can't feed him.	Use can use any small magnet to feed him with, such as those that attach small objects or notes to refrigerator doors.				

#### 10. Interacting With Other Robotic Pets

Boomer's programming is designed to hear and respond with other Robotic Pets from the Institute of Robotic Technology. These include Tekno the Robotic Puppy, Kitty the Tekno Kitten, or Polly the Tekno Parrot -- as well as other Tekno 2.0 robots such as Flash the Robotic Turtle, Mack the Robotic Fish, and Roscoe the Robotic Frog. If you have a friend with another Tekno pet, place them near one another. You'll see they begin to react to each other and all sorts of fun ways! They'll walk, talk and generally like each other's company. It's a great way to keep your



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