

# inVoca™

## The world's Most Advanced Remote Control



## Tell Your TV What To Do — Without Lifting a Finger!

Users Guide

### Macros Explained

One of the powerful features of **inVoca** is its ability to utilize "macros." A macro is simply a sequence of commands triggered by a single button push or spoken word. A simple macro might be "0" followed by "7" followed by "Enter" (for tuning your TV) reduced by a macro to a single command such as "ABC" or "Millionaire."

A more complex macro would allow you to play a VCR tape. To do this the old fashioned way you would need to press "TV" then "Power" then "0" then "3" then "VCR" then "power" then "play." A macro would allow you to do all this with a single spoken command such as "play tape." Isn't that easier? "Multiple String Macros," explained on page 21, permit you to do such things as surf between three or four channels with a single command — very handy for watching New Year's Day football!

---

**Following are the conventions used in this guide**

Button

An **inVoca** button

Button1 → Button2

Press and release button 1, then press button 2

Word

Prompts spoken by **inVoca** are in light italics

Word

Your voice commands are in dark italics

## The World's Most Advanced Remote Control

Using technology so advanced that it has been used in interplanetary space probes, the **inVoca**<sup>™</sup> Voice Operated Remote Control uses the sound of your voice to control your TV, VCR, Cable Box, Satellite — and even your home theater! The **inVoca** converts your spoken words into infrared remote control signals using proven, accurate, voice recognition technology.

The **inVoca** can recognize up to 50 commands and is so automated it can perform multi-step operations from a single spoken command!

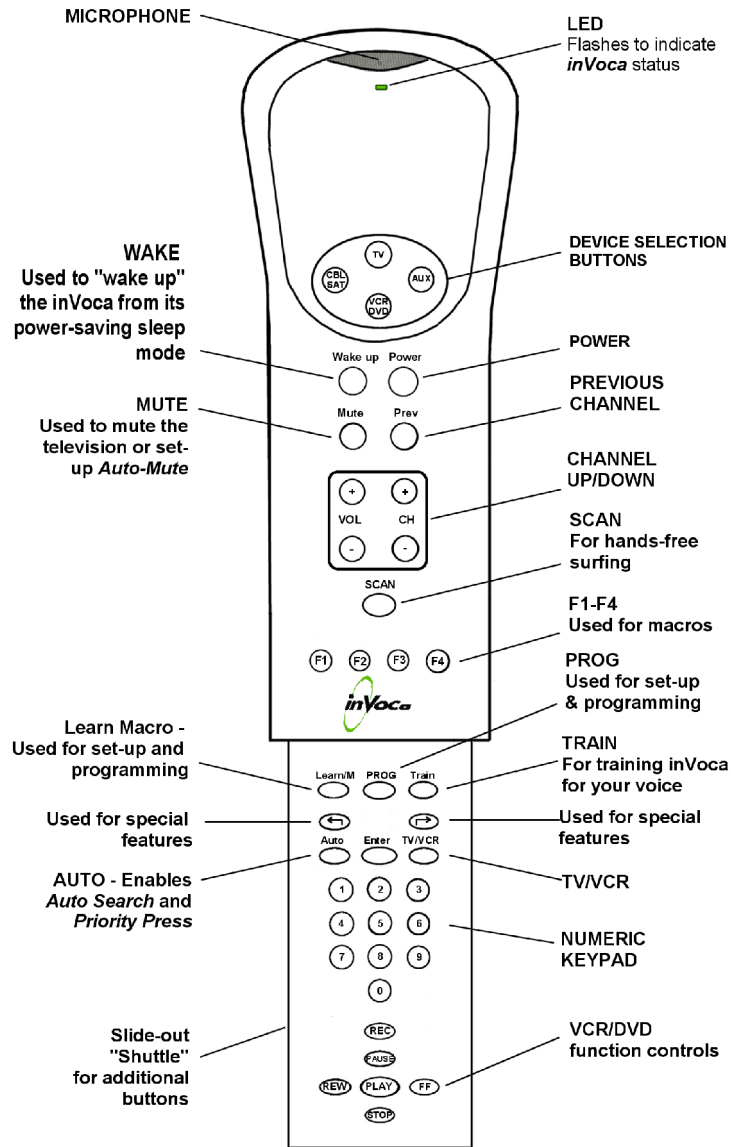
### Key Features

- **Fully Functional Universal Remote Control**
  - Operates with voice commands or button presses
  - Control up to four devices (TV, VCR, Cable/DSS, DVD)
- **User-Trained Voice Recognition**
  - Language and accent independent
  - Map any voice command to any button
  - Train up to 50 voice commands
- **Easy Set-Up**
  - Friendly "Voice Prompts" talk you through the set up
  - Simple training process combines macros and voice commands
  - Handy "Auto-Search" feature finds the right code for your entertainment device
- **Four Independent "Personalities"**
  - Every family member has their own personal voice commands and favorite channels
- **Powerful Macro capability**
  - A single voice command can send multiple button presses
  - Multi-String Macros send out different button sequences on subsequent commands
  - Up to 50 macros
- **Favorite Channel Selection**
- **Channel Scan** for Hands Free Surfing
- **Non-Volatile Memory** retains set-up without the battery
- **Priority Press**<sup>™</sup> simplifies commands and reduces button presses
- **Fast Volume**<sup>™</sup> for rapid voice-controlled volume changes

## Table of Contents

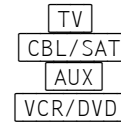
BUTTONS & FUNCTIONS .....	5
SET UP GUIDE .....	7
Set up <b>inVoca</b> For Your	
Entertainment System (TV, VCR etc.) .....	9
Teach <b>inVoca</b> to Recognize Your Voice .....	10
Training Voice Commands and Macros .....	10
USING VOICE COMMANDS .....	16
Choosing Voice Commands .....	17
To Cancel A Training Operation .....	18
SPECIAL FEATURES .....	19
Fast Volume <sup>™</sup> .....	19
Channel Scan .....	20
Erasing <b>inVoca</b> 's Programming .....	21
Microphone Sensitivity .....	21
Multi-String Macros .....	21
Priority Press <sup>™</sup> .....	23
Auto-Mute .....	25
Personalities (keywords) .....	26
Setting up Personalities .....	26
<b>inVoca</b> Prompts .....	28
Front Panel LED .....	30
ADVANCED FUNCTIONS .....	31
Setting Up a Button Macro .....	31
SPECIAL COMMANDS .....	33
SEARCH MODES .....	36
Auto Search for Your Device Code .....	36
Manual Search .....	37
Read Back Programmed Code .....	38
Substitute Devices .....	38
FREQUENTLY ASKED QUESTIONS .....	39
SUGGESTED VOCABULARY .....	42
BATTERY INSTALLATION .....	44
INDEX OF DEVICE CODES .....	45
SUMMARY OF BUTTON FUNCTIONS .....	56
INDEX .....	57

# BUTTONS & FUNCTIONS

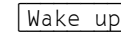


LED

The multi-function LED will flash different colors, depending on the particular operation. See page 9 and page 30.



Used to select the device to be controlled. For example, after pressing **TV**, *inVoca* will control your TV. **AUX** may be used to control any device. See page 38.



Used to "wake up" *inVoca* from its power-saving "sleep mode." See page 16.



Used to turn your TV, VCR, cable box, DSS receiver or DVD player on and off.



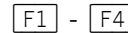
Mutes the TV. May also be used for Auto-Mute. See "Advanced Features," page 25.



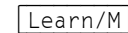
Switches the selected device to the previously tuned channel.



*inVoca*'s Channel Scan feature means hands-free channel surfing — you can even tell *inVoca* how long to stop at each channel! See page 20.



Macro buttons. See page 31



Learn Macro Button. May also be used for an individual macro. See "Advanced Features," page 21.








Program button. Used for setting up the *inVoca*. See Set-up Guide, Special Features, and advanced features



Used in "training" voice commands. See "Voice Set Up," page 10.



Used for various functions. When you see  followed by another button (for example,  → ), press and release the  button, then press the  button.



See above



Used for Auto-Search. See page 36.

# SET UP GUIDE

Setting up the *inVoca* is as easy as:

## 1 Set up *inVoca* for your entertainment system



## 2 Teach *inVoca* to recognize your voice



## 3 Set up macros

### 1 Set up *inVoca* for your system (TV, VCR etc.)


The *inVoca*, just like any universal remote control, needs to be set up to operate with the entertainment components you wish to control. Once the *inVoca* is set up to operate with the components, you can then "train" the *inVoca* to recognize and respond to your voice commands. (See page 9)

### 2 Teach *inVoca* to recognize your voice




The powerful voice recognition capability of *inVoca* is user-trained for language and accent independence. ***Before you can use inVoca, you will need to teach it to recognize your voice commands.***

You may optionally train the *inVoca* to respond differently to up to four family members or "personalities." Because every person using the *inVoca* will probably have a different speech pattern pitch, the *inVoca* will provide the best results when "trained" to respond to each family member. In addition, *inVoca*'s use of "personalities" allows all family members to have their own favorite channels and word choice. (Page 10)






### 3 Set up macros

Any word may be set up to initiate either a single button press (for example  to turn up the volume) or a "macro." A

"macro" is simply a sequence of multiple button presses initiated with one command (See "Macros Explained," page 2). For example:

 →  → 

tells *inVoca* to switch into TV mode, then turns the TV to channel 17.

 →  →  →  → 

tells the TV to switch to channel 3, then instructs the VCR to start playing a tape.

As you will see, the user-friendly *inVoca* set-up combines training commands and macros into one simple operation. (Page 10)

## 1. Set up *inVoca* For Your Entertainment System (TV, VCR etc.)

Before using the *inVoca* you will need to install four new AA alkaline batteries (see page 44), then set it up for the entertainment components you wish to control, such as your TV, VCR, and Cable or DSS box.

1. <input type="text" value="TV"/> , <input type="text" value="CBL/SAT"/> , <input type="text" value="VCR/DVD"/> , or <input type="text" value="AUX"/>	Press the device button for the device you wish to program. The LED will flash red once.
2. <input type="text" value="PROG"/>	Press the <input type="text" value="PROG"/> button. The LED will flash red twice.
3. <input type="text" value="1"/> → <input type="text" value="2"/> → <input type="text" value="3"/>	Type in the 3-digit code for your TV, VCR, Cable Box, DSS or DVD. The codes can be found in the Code List section beginning at page 45. The LED will flash red once for each digit pressed.
4. <input type="text" value="PROG"/>	After you have entered the correct code, press <input type="text" value="PROG"/> . The LED will flash red three times. You have now programmed the device. Test the device by pressing <input type="text" value="Power"/> . If it does not respond to the <input type="text" value="Power"/> button, try the next code in the list for your system's manufacturer.
5. <input type="text" value="TV"/> , <input type="text" value="CBL/SAT"/> , <input type="text" value="VCR/DVD"/> , or <input type="text" value="AUX"/>	Repeat steps one through four for each device you wish to program: TV, VCR, Cable box, or DSS.

🔊 *The codes in the back of this manual are arranged in order of age. The first codes are the latest models, and the last codes are the oldest. You may have to try several codes in order to find the correct code. If you cannot find the correct code, refer to the **Auto Search/Manual Search** (See page 36) feature or the **Frequently Asked Questions** section of this manual (page 39). 🗣️*

## 2. Teach *inVoca* to Recognize Your Voice

The powerful voice recognition capability of *inVoca* is user-trained for language and accent independence. *Before you can use inVoca, you will need to teach it to recognize your voice.*

### Training Voice Commands and Macros

The user-friendly, yet powerful *inVoca* training system combines training your individual voice commands and macros into one combined operation.

🔊 *Before training inVoca to recognize your voice commands, please be sure the room is reasonably quiet and lower the TV volume. While the inVoca employs the latest state-of-the-art in speech recognition, it will nonetheless have difficulty recognizing commands if two people are speaking at once or if there is other background noise. 🗣️*

🔊 *The closer inVoca is located to you the better the chance inVoca has of hearing and understanding your commands. This is especially true in a noisy room. Remember inVoca is trying to understand what you are saying over the sounds coming out of the TV. In general, you will have best results when inVoca is between 12 and 36 inches from your mouth in a quiet room, and between 12 and 24 inches in a noisy room. You may adjust this somewhat with the microphone sensitivity switch (page 21). 🗣️*

### 🔊 *Special Note To First Time inVoca Users* 🗣️

*Please remember to speak the same when you are training inVoca as you will when you actually are using inVoca. If, like many new users, you speak unusually clearly and slowly during training, inVoca may not recognize your commands in actual use. For consistent results, speak naturally at all times! As with all voice operated products, you will achieve the best results with practice. You should try to hold inVoca at the same distance from your mouth during training as you will when you are using it, and train inVoca in the same room as you will be using it in.*

To train your first command (Teach *inVoca* to turn on the TV) follow these steps:

### Train *inVoca* to Turn on the TV

You Do This	<i>inVoca</i> Response
Press the <input type="button" value="Train"/> button	<i>inVoca</i> will say, "Say a word." When the <i>inVoca</i> is ready to listen, the LED will light green.
Say a one or two-word voice command. For example, " <b>TV Power.</b> "	<i>inVoca</i> will ask you to repeat the command.
Say the same word again	If the two words match, <i>inVoca</i> will say "Press a button."
Press the first button that you wish to associate with the voice command ( <input type="button" value="TV"/> in this example) within 15 seconds.	<i>inVoca</i> will respond with, "Button accepted. Press another button."
Press the next button in the sequence (in this example, <input type="button" value="Power"/> ) within 15 seconds.	<i>inVoca</i> will say, "Button accepted. Press another button."
Since you have now completed the sequence, press the <input type="button" value="Train"/> button.	Since you have created a sequence of more than one button, <i>inVoca</i> will say, "macro assigned."

The voice-command **TV Power** is now assigned to the macro sequence  → , and is equivalent to pressing the  button, then the  button.

If you wish to test the command that you have trained now, you will need to first "wake up" *inVoca* by pressing the  button. (See *Using Voice Commands*, page 16.) To program *inVoca* to turn your cable box on and off, follow the above procedure, but use the  button instead of the  button, and use the command "**Cable Power.**"

Now, using the same procedure, let's set up the most common commands.

### Train *inVoca* To Go Up To The Next Channel

You Do This	<i>inVoca</i> Response
Press <input type="button" value="Train"/>	<i>inVoca</i> will say, "Say a word." The LED will light green.
Say the command " <b>Next Channel.</b> "	<i>inVoca</i> will say "Repeat."
Say " <b>Next Channel</b> " again.	If the two commands match, <i>inVoca</i> will say "Press a button."
Press <input type="button" value="C+"/>	<i>inVoca</i> will respond with, "Button accepted. Press another button."
Press <input type="button" value="Train"/>	<i>inVoca</i> will say, "Button assigned."

### Train *inVoca* To Go Down A Channel

You Do This	<i>inVoca</i> Response
Press <input type="button" value="Train"/>	<i>inVoca</i> will say, "Say a word." The LED will light green.
Say the command " <b>Previous.</b> "	<i>inVoca</i> will say "Repeat."
Say " <b>Previous</b> " again.	If the two commands match, <i>inVoca</i> will say "Press a button."
Press <input type="button" value="C-"/>	<i>inVoca</i> will respond with, "Button accepted. Press another button."
Press <input type="button" value="Train"/>	<i>inVoca</i> will say, "Button assigned."

(As with any universal remote control, you will need to let *inVoca* know what device it is to control. For example, if you use a cable or DSS box to change channels, remember to train the  button as above, and select "Cable" or "DSS" prior to changing channels.)

### Train *inVoca* To Select The Cable Box

You Do This	<i>inVoca</i> Response
Press <input type="button" value="Train"/>	"Say a word." LED will light green.
Say " <b>Cable</b> "	"Repeat"
Say " <b>Cable</b> " again.	"Press a button"
Press <input type="button" value="CBL/SAT"/>	"Button accepted. Press another button"
Press <input type="button" value="Train"/>	"Button assigned"

To program *inVoca* to select your TV, follow the above procedure, but use the  button instead of the  button, and use the command "TV."

### Train *inVoca* To Make The Volume Louder

You Do This	<i>inVoca</i> Response
Press <input type="button" value="Train"/>	"Say a word." LED will light green.
Say " <b>Louder.</b> "	"Repeat"
Say " <b>Louder</b> " again.	"Press a button"
Press <input type="button" value="V+"/>	"Button accepted. Press another button"
Press <input type="button" value="Train"/>	"Button assigned"

### Train *inVoca* to Make The Volume Softer

You Do This	<i>inVoca</i> Response
Press <input type="button" value="Train"/>	Say a word. LED will light green.
Say " <b>Softer.</b> "	"Repeat."
Say " <b>Softer</b> " again.	"Press a button"
Press <input type="button" value="V-"/>	"Button accepted. Press another button"
Press <input type="button" value="Train"/>	"Button assigned"

☞ To make *inVoca* get louder or softer rapidly without having to repeat the commands **Louder** and **Softer**, see *Fast Volume™* (page 19) ☞

### Train *inVoca* to Scan Channels (see page 20 for Scan operation.)

You Do This	<i>inVoca</i> Response
Press <input type="button" value="Train"/>	<i>inVoca</i> will say, "Say a word." The LED will light green.
Say " <b>Scan.</b> "	<i>inVoca</i> will say "Repeat."
Say " <b>Scan</b> " again.	If the two words match, <i>inVoca</i> will say "Press a button."
Press <input type="button" value="SCAN"/>	<i>inVoca</i> will respond with, "Button accepted. Press another button."
Press <input type="button" value="Train"/>	<i>inVoca</i> will say, "Button assigned."

Using this procedure, you can set up both simple or complex sequences. For example, let us now set up a simple macro to turn the TV to channel 33 to watch Nickelodeon (you will need to substitute the correct channel number for your location):

### Train *inVoca* to Tune to a Specific Channel

You Do This	<i>inVoca</i> Response
Press <input type="button" value="Train"/>	<i>inVoca</i> will say, "Say a word." The LED will light green.
Say " <b>Nickelodeon</b> "	"Repeat"
repeat " <b>Nickelodeon</b> "	"Press a button."
Press <input type="button" value="3"/>	"Button accepted. Press another button"
Press <input type="button" value="3"/>	"Button accepted. Press another button"
Press <input type="button" value="Train"/>	"Macro assigned."

You'll never have to remember what the channel number for Nickelodeon is again! Using the same sequence, you may train *inVoca* to respond to your other favorite channel choices. Remember, you don't have to set up all of your channels — you can still change channels with "**Next Channel**," "**Previous Channel**," and "**Scan**." Just set up your favorite channels.

You can also set up more complex macros. For example, with just the single command "Play Tape," you can set up the *inVoca* to switch the television to channel three, turn on the VCR, then press the  button on the VCR. The macro sequence is:  →  →  →  →  → .

### Teach *inVoca* A Macro To Play A Tape

You Do This	<i>inVoca</i> Response
Press <input type="button" value="Train"/>	<i>inVoca</i> will say, "Say a word." The LED will light green.
Say the command "Play Tape"	<i>inVoca</i> will say "Repeat."
Say "Play Tape" again.	<i>inVoca</i> will say "Press a button."
Press <input type="button" value="TV"/>	<i>inVoca</i> will respond with, "Button accepted. Press another button."
Press <input type="button" value="0"/>	<i>inVoca</i> will respond with, "Button accepted. Press another button."
Press <input type="button" value="3"/>	<i>inVoca</i> will respond with, "Button accepted. Press another button."
Press <input type="button" value="VCR"/>	<i>inVoca</i> will respond with, "Button accepted. Press another button."
Press <input type="button" value="POWER"/>	<i>inVoca</i> will respond with, "Button accepted. Press another button."
Press <input type="button" value="PLAY"/>	<i>inVoca</i> will respond with, "Button accepted. Press another button."
Press <input type="button" value="Train"/>	<i>inVoca</i> will say, "Macro assigned."

When you are programming a new voice command or keyword, *inVoca* will ask you to say a word. You must choose a voice command that is easy for you to remember and is distinct from any other voice command. *inVoca* will warn you if you speak too soon, or too softly. *inVoca* will always ask you to repeat the command. This

is to insure that the command was correctly recorded. For example, a background noise that you did not notice may have been recorded as part of the command. You may be asked to repeat the command several times before *inVoca* is convinced that it has a good sample. If the command or keyword is similar to one already recorded, *inVoca* will ask you to "Choose a different word."

⌋ See "Choosing Voice Commands" (Page 17) for some guidelines in selecting commands. 🗨️

## USING VOICE COMMANDS

⌋ To maximize battery life, the *inVoca* will "sleep" when not in use. Remember to "wake up" the *inVoca* by pressing the  button before giving the *inVoca* a voice command. When you first wake up *inVoca*, it will remain awake for 60 seconds as it listens for the first voice command. Each time *inVoca* recognizes a command, it will remain awake for another 60 seconds as it listens for the next command. This time is adjustable. See page 34 🗨️

⌋ Please be sure the room is reasonably quiet — while the *inVoca* employs the latest state-of-the-art in speech recognition, it will nonetheless have difficulty recognizing commands if two people are speaking at once or if there is other background noise. 🗨️

⌋ *inVoca* requires a brief period of silence before it can recognize a voice command. 🗨️

The *inVoca* will immediately listen for remote commands when the  button is pressed. The LED will light green indicating that it is listening for a voice command.

*The closer inVoca is to you, the better the chance it has of hearing and understanding your commands, especially if the room is noisy or the television volume is high. Remember inVoca is trying to understand what you are saying over the sounds coming out of the*



TV. In general, you will have best results when **inVoca** is between 12 and 36 inches from your mouth in a quiet room, and between 12 and 24 inches in a noisy room. You should try to hold **inVoca** at the same distance from your mouth during training as you will when you are using it.

☞ As with any remote control, the infrared LEDs must be pointing at the device to be controlled when either a button is pressed or a voice command is utilized. ☞

### **Choosing Voice Commands**

**inVoca** allows you to associate any voice command with any button. While it might be tempting to program a voice command for every button, this is usually not recommended because in operation you would then need to pause, say the first number, then pause and say the next number. It is more useful to assign a voice command to a macro. For example you can use the command "HBO" to set your cable box to channel 17 (or whatever channel HBO is on your neighborhood). You could program the voice command as "Channel 17" but "HBO" is usually easier to remember. *Use commands that are easy to remember!*

Try to choose voice commands that are distinct from one another. For example, "CSPN" and "ESPN" will probably sound too similar for most speakers. Changing one of these to something that sounds different (for example, C-SPAN instead of CSPN) will provide better results. Multi-syllable or two-word commands work better than short words because **inVoca** has more information to work with and can better understand the command. For example "Quiet" is a better word choice than "Mute" because it contains more sound information. Also, having commands of different length will make it easier for **inVoca** to distinguish them.

You may wish to associate the words "Louder" and "Softer" with the volume-up and volume-down buttons. But for some people "louder" sounds a lot like "power" (at least as far as **inVoca** is concerned), so you may inadvertently shut off your TV instead of making it louder.

Using the words "TV Power" or "power on" will make it easier for **inVoca** to distinguish the commands. Also, remember if you make the TV too loud, **inVoca** may have a hard time hearing your commands over the sound of the TV.

"Next Channel" and "Previous Channel" will often provide better results than "channel up" and "channel down." See "Suggested Vocabulary" (page 42) for more suggestions.

### **Changing and Deleting Voice Commands**

From time to time you may wish to delete or change a voice command. For example, you may decide you would prefer a different command that is easier to say or remember. Sometimes, if a command is not working well, there may have been some background noise when you recorded the command, and performance will be improved if you erase, then re-record it.

To delete a voice command:









1. Press and release the  button, then press the  button.
2. **inVoca** will respond with "Beep. Say a word."
3. Say the command you wish to erase.
4. **inVoca** will respond with "button erased" or "macro erased."

### **To Cancel A Training Operation**





You may elect not to train a command after you have pressed the  button, or after beginning to erase a personality. If you do not speak after pressing the  button, **inVoca** will respond three times with the words "too soft." You have the choice of waiting for **inVoca** to repeat this phrase or you may simply press any button to cancel the operation.



## SPECIAL FEATURES



### **Fast Volume™**

*Fast Volume* is a unique feature of **inVoca** that makes remote control of volume especially fast and convenient. *Fast Volume* sends multiple volume up or down commands with a single button push or just one spoken command. To use *Fast Volume* simply press  →  (louder) or  →  (softer) to have **inVoca** send four volume up or down commands at one time. For even faster volume adjustment,  →  or  →  sends eight volume up or down commands.






To train **inVoca** to use Fast Volume:





1. Be sure the room is reasonably quiet.
2. Press and release the  button
3. **inVoca** will prompt you by saying "Say a word"
4. Wait for the LED to light up green before you speak.
5. Say a one or two word voice command. For example, "**Much Louder**"
6. The **inVoca** will ask you to repeat the command.
7. Say the same command again.
8. If the two commands match, **inVoca** will say "Press a button."
9. Press and release , then press . **inVoca** will say, "Button accepted. Press another button." Press . **inVoca** will respond with "button assigned."



Repeat the above steps with the voice command "**Very Soft**," and with the button sequence  →  for rapidly lowering the volume.

 *Please note: **inVoca** will need one or two seconds to send the entire string of volume up or down commands to avoid sending commands faster than the television can receive them. For best results, make sure the **inVoca** is pointing toward the television the entire time the **inVoca** LED is red.* 


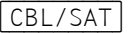

### **Channel Scan**

Channel Scan gives you *hands free* channel surfing. Once you have pressed the  button or spoken the channel "scan" command, **inVoca** will send out a  (Channel Up) or  (Channel Down) command every few seconds until you issue another voice command (such as "scan") or press any button other than 1-9,  or .





The scan will be up if the last channel button you pressed was , or down if the last channel button you pressed was . You may control the speed of the scan (that is, how long the TV will pause at each station) by pressing buttons 1 - 9 while **inVoca** is scanning. The range is one channel command every three seconds if you press button 1, one command every four seconds if you press button 2, ranging up to one command every 12 seconds with button 9. You can press  or  to switch directions.

 **inVoca** cannot listen for voice commands at the same time it is sending infrared commands. If you try to issue a voice command to stop the scan while the LED is red, signifying **inVoca** is transmitting, it will not be able to hear your command, and **inVoca** will keep scanning. To avoid this it is recommended that you do not set the scan rate at too fast a speed, and avoid issuing commands while the LED is red. 

### **Punch Through**

Some TV, VCR, cable box, and satellite receiver controls may work at the same time, depending on the type of TV, VCR, and cable box that you use. For example, with Punch Through, even after you have pressed the , or  buttons, the volume control may still control the television, reducing the need to push the  button. Availability of this feature will vary with the type of entertainment devices you are using.

## Erasing inVoca's Programming








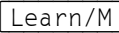



*inVoca* uses a special non-volatile memory to remember voice commands, macros, priority press and device setup. This ensures that *inVoca* will retain its programming even when you are changing the battery. From time to time you may wish to completely erase all programming and start fresh. To clear non-volatile memory, press  →  (*inVoca* will respond with a beep) followed by  →  again. (The LED will turn orange, then after a brief pause, *inVoca* will respond with the word "erased.") **Caution: this will erase all set up information, voice commands and macros.** *inVoca* will be reset to its default settings.

## Microphone Sensitivity

A three-position microphone sensitivity control is located inside the battery compartment (see page 44). The sensitivity as shipped should be optimal for most users. However, you can make the microphone either more or less sensitive. Making the microphone more sensitive will make the *inVoca* more responsive to your commands, but also more sensitive to background sounds such as the TV or other people talking. Making the microphone less sensitive will make the *inVoca* less sensitive to background noises but also less sensitive to your voice, so you will need to speak louder.

## Multi-String Macros

Multiple String macros take the flexibility and power of the *inVoca* to another level by letting you program a single command to step through a series of button sequences each time you speak the command. For example, a multi-string macro can let you surf through three favorite channels with just a single voice command or button push. The following multi-string macro uses the TV tuner to step through channels two, four, and seven, with a tuner that requires you to enter all numbers as two-button sequences.

You Do This	<i>inVoca</i> Response
Press the  button	<i>inVoca</i> will say, "Say a word." The LED will light green.
Say a one or two-word voice command. In this example, "Favorite."	<i>inVoca</i> will ask you to repeat the command.
Say <i>Favorite</i> again	If the two words match, <i>inVoca</i> will say "Press a button."
Press the first button of the macro. For example, 	<i>inVoca</i> will say, "Button accepted. Press another button."
Press the next button. In this example, 	<i>inVoca</i> will say, "Button accepted. Press another button."
Press the next button. In this example, 	<i>inVoca</i> will say, "Button accepted. Press another button."
Signify the end of the first string by pressing 	<i>inVoca</i> will say, "Button accepted. Press another button."
Press 	<i>inVoca</i> will say, "Button accepted. Press another button."
Press 	<i>inVoca</i> will say, "Button accepted. Press another button."
Signify the end of the second string by pressing 	<i>inVoca</i> will say, "Button accepted. Press another button."
Press 	<i>inVoca</i> will say, "Button accepted. Press another button."
Press 	<i>inVoca</i> will say, "Button accepted. Press another button."
Signify the end of the last string by pressing 	<i>inVoca</i> will say, "Macro assigned."

Now, the first time you say "favorite," *inVoca* will take you to channel two. When you repeat "favorite," *inVoca* will take you to

channel four. As you repeat "favorite" *inVoca* will take you to channel seven, then keep surfing through the three channels. Could anything be easier for watching bowl games?

### **Priority Press™**

*Priority Press* is a new feature that makes using *inVoca* simpler than any other remote control by eliminating the traditional need to push the **TV**, **CBL**, **VCR**, or **AUX** button every time you want to change what you are doing. *Priority Press* puts you in complete control. With *Priority Press*, you decide which entertainment device you wish to use for common functions — which you then perform with just one button press. *Priority Press* also simplifies voice programming, by reducing the number of button presses required to perform a function.

☞ *Once you have programmed Priority Press, you may never need to press the **TV**, **CBL**, **VCR**, or **AUX** buttons again!* ☜

For example, if both your cable box and TV can control volume, you can have *inVoca* automatically select the TV whenever you press volume up, volume down or mute, and have the *inVoca* automatically select the cable box to change channels whenever you press channel up, channel down, or any numeric key. (With traditional remote controls you would need to remember to push the TV button to change to the TV mode, then change the volume, then press the cable button to switch back to the cable mode to continue changing the channels.)

To set up *Priority Press*:

1. <b>TV</b> , <b>CBL</b> , <b>VCR</b> , or <b>AUX</b>	Press the device button for the device you wish to program.  The LED will flash once.
2. <b>PROG</b>	Press the <b>PROG</b> button. The LED will flash twice.

3. <b>V+</b> <b>V-</b> or <b>Mute</b> (Volume Group)  <b>C+</b> <b>C-</b> , <b>0</b> ... (Channel Group) <b>9</b> , <b>Prev</b>  <b>&lt;&lt;</b> <b>&lt;</b> <b>Stop</b> <b>&gt;</b> or <b>&gt;&gt;</b> (Tape/DVD Control Group)  <b>Power</b> (Power Group)	After you have pressed <b>PROG</b> , press any button in the desired group. The LED will flash three times.  Any button in the group will now control the selected device.
---	--

For example, to set up *Priority Press* to use the volume commands to specifically control your TV:

Press **TV** → **PROG** → **V+**

To automatically select your cable box whenever you wish to change channels, press **CBL** → **PROG** → **C+**

*Priority Press* classifies buttons of each common type together. The classifications are: volume-related buttons, channel related buttons, and tape/DVD control buttons. Once you assign any button to a device, all the buttons of that type are automatically assigned. For example, if you assign **C+** to the cable box, **C-**, **Prev**, and the numeric keys are then all assigned to the cable box. Similarly, if you assign **V+** volume up to the television, **V-** and **Mute** are also assigned to the television.

You can turn off *Priority Press* at any time simply by pressing any source button (such as **TV** or **VCR**). You may turn *Priority Press* back on by simply by pressing the **Auto** button.

If you wish to override *Priority Press* (for example to record one channel with your VCR while you are watching a different channel with your TV), simply press a device button (**TV**, **CBL**, **VCR**, or **AUX**). The LED will flash once. To turn *Priority Press* back on, press **Auto**.

## Auto-Mute

When enabled, Auto-Mute sends a Mute command to the television, thus making the room quiet so that *inVoca* will better understand voice commands.

*inVoca* offers two alternative Auto-Mute modes. In the full Auto-Mute mode, any time *inVoca* wakes up through the user pressing the  button, *inVoca* will send a mute signal. In the "Qualified Auto-Mute" mode, *inVoca* sends a mute signal whenever it hears a valid keyword. You may sequence through the Auto-Mute modes as shown below. The LED will indicate whether Auto-Mute is on, and if so, which Auto-Mute mode is selected by flashing as shown.

Press	Then Press	Auto-Mute Mode	LED will flash
<input type="button" value="↶"/>	<input type="button" value="Mute"/>	Full Auto-Mute	2 times
<input type="button" value="↶"/>	<input type="button" value="Mute"/>	Qualified Auto-Mute	3 times
<input type="button" value="↶"/>	<input type="button" value="Mute"/>	Auto-Mute Off	1 time

You may turn the volume back on by issuing a Mute command.

## Special buttons

A very limited number of entertainment devices (such as cable boxes) require buttons that are not displayed on *inVoca*. Two additional button functions available are:

Display      To send the Display command to your device, press  
 →

Reset        To send a Reset command to your device, press  
 →

For additional buttons see table on page 56

## VCR Recording

To prevent recording accidentally, *inVoca* requires that you press the REC button twice to send your VCR a record command.

## **ADVANCED VOICE OPERATION FEATURES**

### Personalities (keywords)

*L* If only one person is to use the *inVoca*, personalities are not required. 7

When Personalities are programmed, *inVoca* can learn independent voice commands for as many as four people and each family member can program *inVoca* for his or her favorite channels. *inVoca* will only search for voice commands for the currently active personality. This can be helpful since a child's voice is so much different than an adult's voice. The use of Personalities is optional but it will increase the recognition accuracy for households where more than one person will be using the *inVoca* remote control.

### Setting up Personalities (optional)

"Personalities" are assigned through the use of "Keywords" to identify individual users. To train the *inVoca* to recognize a user ("train a keyword"):

1. Be sure the room is reasonably quiet.
2. Press and release the  button then press the  button
3. *inVoca* will prompt you by saying "Say a keyword"
4. Wait for the LED to light up green before you speak.
5. Say a one or two word voice command. For example, "Daddy."
6. The *inVoca* will ask you to repeat the command.

7. Say the same word again.
8. If the two words match, **inVoca** will say "keyword assigned." If voice commands were programmed prior to the first keyword, then they will all be assigned to the first keyword.

L You can add Personalities at any time, even if you have already trained **inVoca** to operate without having assigned a Personality. If you program a set of voice commands, and then record a keyword, **inVoca** will associate all the existing commands to the first Personality recorded. After that, you must identify yourself before you record any new commands to insure that they are added to the correct personality. If you have trained **inVoca** to recognize a large number of commands, you may wish to erase them, then re-train **inVoca** with the commands for each personality. 7

If personalities are programmed, **inVoca** will normally "wake up" listening for the last personality used. That is, if "Daddy" was the last personality used, **inVoca** will wake up assuming that it is still being operated by "Daddy." To change users, press and release the  button then press the  button. The LED will light orange which means that it is listening for a keyword to identify the personality. Once it recognizes a keyword the LED will light green and **inVoca** will remember the new personality until you change it again.

### Switching to a Different Personality

If several family members typically take turns using **inVoca**, you may change the operation so that, if personalities are programmed, **inVoca** will always wake up listening for a new keyword. To do this, Press and release the  button then press the  button. The LED will flash twice.

In this mode of operation, the **inVoca** LED will turn orange when **inVoca** has been awakened by pressing the  button. **inVoca** then waits for you to identify the personality that you want to use. Say the keyword (personality) that you programmed. If **inVoca** recognizes the keyword, it will change the LED to green. **inVoca** will

listen for a keyword for 30 seconds. If it doesn't hear a valid keyword in 30 seconds it will turn off the LED and go back to sleep.

If it does hear a keyword, **inVoca** will listen for voice commands for the selected personality only for a period of 60 seconds. If it hears a legitimate voice command, it will transmit the appropriate IR command and reset its 60-second timer. The LED will be Green while it is listening for voice commands and red while it is sending IR commands.

You may change the operation back by pressing the  button then press the  button again (the LED will flash once).

### **To erase a keyword ("personality"):**

1. Press and release the  button, then press .
2. **inVoca** will respond with "Beep. Say a keyword."
3. Say the keyword you wish to erase.
4. **inVoca** will respond with "keyword erased." (Note: erasing a personality also erases the commands associated with the personality.)

### inVoca Prompts

The **inVoca** Remote Control gives you a visual indication of its status through its front panel LED, while friendly "voice prompts" talk you through the process of setting up keys the way you want. **inVoca** won't let you program commands that it can't understand. Following is a summary of the prompts **inVoca** will provide:

<b>inVoca will respond with this prompt</b>	<b>When you press this button</b>	<b>Comment</b>
Say a word	<input type="button" value="Train"/>	You may now record a voice command

<i>inVoca</i> will respond with this prompt	When you press this button	Comment
<i>Press a button</i>		You should now press a button to associate with the command just recorded
<i>Button accepted. Press another button</i>		You should now press the next button associated with the command just recorded. If the last button has been pressed, press <input type="button" value="train"/> .
<i>Button assigned or Macro assigned</i>	<input type="button" value="Train"/> (after entering a button or macro)	<i>inVoca</i> is finished training a button
'beep' Say a word	<input type="button" value="↩"/> → <input type="button" value="Train"/>	You may now delete a voice command.
<i>Button Erased or Macro Erased</i>		<i>inVoca</i> has deleted a voice command
<i>Say a keyword</i>	<input type="button" value="↩"/> → <input type="button" value="Train"/>	Record a personality
<i>Keyword Assigned</i>	<input type="button" value="↩"/> → <input type="button" value="Train"/> (after saying a keyword)	<i>inVoca</i> is finished training a keyword (personality)
'beep' Say a keyword	<input type="button" value="↩"/> → <input type="button" value="REW"/>	Delete a personality (and its commands)
<i>Keyword Erased</i>		<i>inVoca</i> has deleted a personality (and all its commands)
<i>Repeat</i>		<i>inVoca</i> needs to hear two consecutive voice samples that match
<i>Too Soft</i>		You spoke too softly. Speak louder

<i>inVoca</i> will respond with this prompt	When you press this button	Comment
<i>Too Soon</i>		You began speaking before the green light came on
<i>Too Loud</i>		You spoke too loudly. Speak softer
<i>Choose a different word</i>		The Command or keyword you used is too similar to one previously recorded.
<i>Too Long</i>		Your command was too long (more than 2 seconds)
<i>Memory full</i>		You have tried to record either too many commands, macros, or keywords. Up to 50 commands, 50 macros, or 4 keywords may be recorded

### **Front Panel LED**

The front panel LED will light in various colors to indicate the status of the *inVoca*. Following is the meaning of the different colors:

LED Color	Front Panel (Visible) LED Interpretation
Off	<i>inVoca</i> is sleeping awaiting a button depression.
Red	<i>inVoca</i> is sending infrared commands to your TV, other device, or flashing programming responses.
Orange	<i>inVoca</i> is listening for keywords
Green	<i>inVoca</i> is listening for remote commands

## ADVANCED FUNCTIONS

*inVoca* offers a number of advanced functions that bring out its full power. These include:

**Button Macros** — In addition to invoking the macro by speaking the appropriate command, you may play macros by first pressing the appropriate macro button. In the set-up procedure described earlier, every macro is assigned to a button as well as a voice command. However, *inVoca* makes the decision as to which button it will assign to each macro.

If you wish to control what button is assigned to each macro, you may manually assign macros to specific buttons, then assign a voice command to the specific macro, rather than have *inVoca* automatically assign the button. This method of operation is called "Button Macros."

*inVoca* can store up to four Button Macros. The four macro buttons are called by the **F1** - **F4** buttons.

### Setting Up a Button Macro

- Press the **Learn/M** (Learn Macro) button.
- The LED will flash once.
- Select one of the four macros by pressing your choice of **F1** - **F4**.
- The LED will flash twice.
- Press the button sequence that you want to program.
- NOTE: The remote will transmit IR commands while you do this so you can see the effect. The LED will light as it normally does when you press buttons.
- End the macro by pressing the **PROG** key.

For example to program Macro F4 to go to channel 24 using your cable box:

Press	LED flashes	Comment
<b>Learn/M</b>	1	Starts the sequence
<b>F4</b>	2	Selects Macro 4
<b>CBL</b>	1	Selects the cable box
<b>2</b>	1	
<b>4</b>	1	Channel 24
<b>PROG</b>	3	End of Macro

When programming macros manually, you simply assign the voice command to the specified macro key. For example, if button **F4** has already been assigned to channel 24 (as above), and you now wish to invoke this with the command "Home Box Office," the voice training sequence is:

You Do This	<i>inVoca</i> Response
Press the <b>Train</b> button	"Say a word." LED will light green.
Say " <b>Home Box Office</b> "	"repeat."
Say " <b>Home Box Office</b> "	"Press a button."
Press <b>F4</b>	"Button accepted. Press another button."
Press the <b>Train</b> button.	"Macro assigned."

Following is an example of creating a multi-string button macro to have button F1 cycle through favorite channels 2, 4, and 12:

Press	LED flashes	Comment
<b>Learn/M</b>	1	Starts the sequence
<b>F1</b>	2	
<b>0</b>	1	
<b>2</b>	1	



Press	LED flashes	Comment
Learn/M	2	end of first string
0	1	
4	1	
Learn/M	2	end of second string
1	1	
2	1	
PROG	3	end of macro

(Note: To reduce keystrokes you should not press Learn/M before PROG at end of macro.)

## SPECIAL COMMANDS

### Delay

On rare occasions, you may find an entertainment device which requires a pause between commands for a macro to operate properly. To provide a pause of ½ second between two commands in a macro, press followed by PAUSE.

### Word Spotting

*inVoca* offers a powerful voice recognition technology called Word Spotting, which allows it to recognize commands even in the middle of a sentence. Word Spotting is useful if *inVoca* is responding to loud background conversation in the room or if the TV is very loud, and adjusting the microphone sensitivity does not help. The word spotting function is initiated by the programmed keyword(s). Word Spotting, however, could cause *inVoca* to respond to command words spoken by other people in the background, or even conversation on the television. To turn Word Spotting on or off, press followed by AUTO. The LED will flash once when Word Spotting is turned off, and will flash twice when Word Spotting is turned on.

To use Word Spotting, you should program *inVoca* for the keyword that you want to use. For example if you set up your keyword to be

'remote' and enable Word Spotting, when you wake up *inVoca*, the LED will light orange to let you know that it is listening for a keyword. Once it recognizes the keyword the LED will turn green indicating it is listening for a command. For example, if the keyword is 'remote' even if *inVoca* is awake, it will ignore any commands until it hears the word 'remote'.

### Reset *inVoca*

You may wish at some point to completely erase all of the programming and set up of the *inVoca*. You may do this by pressing followed by REC (*inVoca* will beep), then pressing followed by REC again. (The LED will turn orange, then after a brief pause, *inVoca* will respond with the word "erased.") **Caution: this will erase all set-up information, voice commands and macros.** *inVoca* will be reset to its default settings.

### Adjust Wake Time

To maximize battery life, the *inVoca* will "sleep" when not in use and is awakened to listen for voice commands when you press the Wake up button. Normally, when you first wake up *inVoca*, it will remain awake for 60 seconds. The Wake time may be lengthened as follows:

1. Press	The LED will flash red once.
2. Press	The LED will flash red twice.
3. Press	The LED will flash red once.
4. Press	The LED will flash as follows: 1 flash = 1 minute 2 flashes = 5 minutes 3 flashes = 10 minutes 4 flashes = 30 minutes
5. Press  →	Repeat steps 3 and four to change the wake time
6. Press	Press  to exit wake time setup.

### **Adjust Macro Repeat**

Most entertainment devices require that infrared commands be repeated some number of times, usually three, in order to reliably accept them. However, a limited number of devices require more or fewer code repeats. *inVoca* defaults to automatically sending each command three times. On very rare occasions, you may notice that a particular entertainment device is performing functions too many times with voice commands or keyboard macros.

For example, you have created a voice macro for channel 12 and you see the TV going to channels 1-1-1-2-2-2. If this happens you need to reduce the repeat count from three to one.

*inVoca* is designed to allow you to change the number of times a command is sent (the repeat count) from between one and four. To change the repeat-count,

1. Press **TV** → **PROG** → **7** → **PROG**
2. *inVoca* will flash the visible LED four times. This means the repeat count is four.
3. Press **7** → **PROG**. The LED will flash once, indicating the repeat count is one.
4. Try the voice command or macro again to see if it works properly. For the most reliable operation, you should use the highest repeat count that works properly. Each time you press **7** → **PROG** you will increase the repeat count by one to the number indicated by the number of LED flashes. After the count reaches four, it will cycle back to one.

## **SEARCH MODES**

*inVoca* offers two search modes, "*Auto Search*" and "*Manual Search*," to help you find the correct code for your entertainment device. When searching for a code using *Auto Search* or *Manual Search* you must first select the appropriate device type.

The **TV** button will search through TVs and TV/VCR combos.

The **VCR/DVD** device button will search through VCRs, TV/VCR combos and DVD players.

The **CBL/SAT** device button will search through cable boxes and DSS receivers.

The **AUX** device button will search through all codes.

### **Auto Search for Your Device Code:**

If you have trouble programming the device code for *inVoca*, or can't find the correct code in the manual, *inVoca* can cycle through the available codes automatically to help you locate a usable code. It is recommended that this feature be used only when all other methods have failed, as it may take from 7 to 18 minutes for the remote to locate the correct code, depending on the device list that you are searching.

1	Power On	Manually turn on the device that you want to auto search (TV, VCR, etc)
2	<b>TV</b> , <b>VCR</b> , <b>CBL</b> , or <b>AUX</b>	Press the device key for the device type for which you are searching. For example, to search for a TV code, press TV (1 Flash).
3	<b>PROG</b>	Press the <b>PROG</b> button once (2 Flashes).
4		Make sure that the remote is aimed directly at the device you want to control.
5	<b>Auto</b>	Press the Auto Search button (1 Flash).

*inVoca* will now search through the library for the target device code. Every 3 seconds the remote will prompt you by flashing the light, and

the remote will test the new code by attempting to turn the device power off.

6	[PROG]	When the target device turns off press the [PROG] key. The code will be stored in memory. (3 Flashes)
---	--------	---

After you have pressed [PROG], check the other buttons (such as CH+ and VOL+) to be sure they all work with the target device. If they do not, repeat steps 1 through 6. When the auto search is re-started the search for the target device will begin where it was last stopped.

To stop the "Auto Search" press any key except the Auto Search key.

### Manual Search

You can manually cycle through the device codes to find a code that works with your TV, VCR, Cable Box, DVD, or DSS.

1	Power On	Manually turn on the device that you want to auto search (TV, VCR, cable box, DVD, or DSS receiver).
2	[TV], [VCR], [CBL/SAT], or [AUX]	Press the device key for the device type you want to search for. For example, to search for a TV code, press TV once (1 Flash).
3	[PROG]	Press the program button once (2 Flashes).
4	[0], [0], [0]	Enter code 0,0,0. (1 Flash for each number pressed). Test the remote, if it works, skip step 5.
5	[PROG]	Press the [PROG] button to change to the next device code. (3 Flashes) Every time [PROG] is pressed the remote will change to the next device code. Test the remote with your entertainment device for each code.
6	[TV], [VCR], [AUX], or [CBL/SAT]	When you find a code that works with your entertainment device, press the device key again. This will lock in the code.

Once you find a code that works you should read back that code using the Read Back feature so you can record the number for reference.

### Read Back Programmed Code

The *inVoca* can read back the codes you selected for TV, VCR, cable box, DVD and DSS receiver, so you that can write them down for future reference. To do this:

1. Press the device key for which you want the code read back. For example, if you want to know the code for your TV, press [TV].
2. Press [PROG]. The light should flash twice.
3. Press [1], then [PROG]. The light will flash the number of the first digit of the code. For instance, if your TV's code is 567, the light will flash five times. If a code digit is zero, the light will not flash.
4. Repeat the previous two steps to get the second and third digits of the TV code. Press [2] followed by [PROG] for the second digit, and [3] followed by [PROG] for the third digit. This procedure can then be repeated for any of the device buttons. You can go directly to any digit (1,2,or 3) → [PROG] if you want to count the flashes again.

### Substitute Devices

You can substitute alternative device types with the *inVoca*. Each of the four device buttons ([TV], [VCR], [CBL], or [AUX]) can be programmed to control your TV, VCR, cable box, DVD, or DSS receiver system. If you would like to program a second TV to be controlled by the [AUX] device button:

1. Press [AUX] and then [PROG]. The LED will flash twice.
2. Enter the desired TV code. The light will flash once for each digit.
3. Press [PROG] and the LED will flash 3 times. Now the [AUX] button will control your second TV. This works with all four device buttons, so it is possible to program up to four TV's, VCR's, and cable boxes.

## FREQUENTLY ASKED QUESTIONS

Q. The *inVoca* is having trouble recognizing a word that I have programmed and I need to keep repeating it. What should I do?

A. The problem could be that there was a background noise when you recorded the word or you picked a word that is difficult for *inVoca* to recognize. See page 17 for hints on choosing words, and "Suggested Vocabulary" (page 42) for good words to try. To see if there was some background noise when you recorded the command, simply erase the training by pressing  → , then re-training the command. Try to have the television sound off when you train *inVoca*. Otherwise, the noise from the television will become part of the voice "template."

You may also be speaking the command differently than when you trained *inVoca*. This is common, particularly with new users who speak especially carefully when first training *inVoca*. Again, the best solution is to erase the command as described above, and re-train the command speaking clearly and naturally. For example, if you train "ABC" as A-pause B-pause C, you should then include the pauses when actually using *inVoca* to operate your TV.

Finally, make sure you are using words that *inVoca* can easily understand. See "Choosing Voice Commands" (page 17) and "Suggested Vocabulary" (page 42). Sometimes, due to individual speech patterns and accents, alternative words may work better for you. See "Suggested Vocabulary" (page 42).

Q. The *inVoca* said "too long" while I was training a command. What happened?

A. A voice command may not be more than two seconds long. If you talk more than two seconds, or if there was a long background noise while you were training a command or *inVoca* was listening for a command, it will say "too long."

Q. I have to keep repeating "louder" and "softer" to adjust volume the amount I would like. What can I do to reduce the number of times I need to repeat these words?

A. See Fast Volume, page 19. Fast Volume is a unique *inVoca* feature designed to adjust your volume with just one command.

Q. *inVoca* appears to have difficulty hearing me unless I speak very loudly.

A. If it is impractical to hold *inVoca* closer to your mouth, and turning down the television volume does not help, you should try adjusting the microphone sensitivity control, located inside the battery compartment. See Page 21.

Q. *inVoca* keeps responding to words it hears on the television or in background conversations.

A. If it is impractical to turn down the television volume, you should try adjusting the microphone sensitivity control, located inside the battery compartment. See Page 21. If this does not help, you should turn on the Word Spotting feature described on page 33. Alternatively, you may also try turning on Auto-Mute, described on page 25.

Q. I pressed the  button, but *inVoca* does not respond to voice commands.

A. *inVoca* will not respond to any voice commands until it has been trained.

Q. Is there anyway to make the *inVoca* stop listening for commands after I press the  button?

A. If you press the  button after *inVoca* is already awake, it will put the *inVoca* back into the sleep mode.

Q. When I first received my *inVoca*, I trained it with a lot of trial commands. Now I want to start over. Is there an easy way to erase everything I did.

A. See "Erasing *inVoca*'s Programming," page 21.

Q. When I try to use the *inVoca* remote, nothing happens, and the LED does not flash.

A. Check to make sure that the batteries are good and have been correctly installed. Refer to the Battery Installation section of the manual.

Q. After I program the *inVoca* remote, it does not work with my entertainment device.

A. You probably didn't select the correct device code. Refer to the Detailed Programming section of the manual. If problems persist, refer to the Auto Search feature.

Q. I tried all the methods, but I still couldn't program the remote correctly, and I don't see my brand of entertainment device listed in the code list.

A. Your entertainment device may not be supported by the *inVoca* remote. Call the customer support number: 1 (800) 200-7700.

Q. The remote is acting erratically.

A. The batteries are probably too weak. Refer to the Battery Installation section and replace them.

Q. Where can I find more helpful hints about my *inVoca*?

A. Visit the *inVoca* Web site at [www.invoca.com](http://www.invoca.com).

Q. My TV takes a long time to change channels after I tell it to go to a specific channel.

A. Some TVs require a channel number to be followed by "Enter." If yours is one of these, make sure you have entered the channel number and then the "Enter" button when training macros.

Q. When using the SCAN function, sometimes I have trouble getting the scanning to stop.

A. *inVoca* cannot respond to your voice while it is busy sending channel commands to the TV etc. Wait until the LED is no longer red to tell *inVoca* to stop the scanning action.

## SUGGESTED VOCABULARY

The following words are recommended for best results:

<u>Word</u>	<u>Comment</u>
TV POWER	
LOUDER	(Usually better than "Volume Up")
SOFTER	(Usually better than "Volume Down")
NEXT CHANNEL	(Usually better than "Channel Up" You may also try "CHANNEL FORWARD.")
PREVIOUS	(Usually better than "Channel Down." You may also try "CHANNEL BACK.")
STOP	
PLAY TAPE	
REWIND	
FAST FORWARD	
SILENT	(Better than "Mute." "MUTING" is also satisfactory)
SCAN	
SURFING	(Better than "Surf")
CABLE	
CABLE POWER	

Try to use a mix of longer words and shorter words, but avoid very short words like On, Off, or Mute. ***Don't hesitate to experiment — everybody speaks differently!***



## INDEX OF DEVICE CODES

Following is a list of device codes to be used when programming the *inVoca* remote control. Note that the first codes listed for an entertainment device brand are the latest models. You may have to try some or all of the codes for each brand before you find the proper code for your product. If you have problems, refer to the Frequently Asked Questions section of the manual (page 39)

### Set-Up Procedure (see page 9 for details)

1. <input type="button" value="TV"/> , <input type="button" value="CBL/SAT"/> , <input type="button" value="VCR/DVD"/> , or <input type="button" value="AUX"/>	Press the device button. The LED will flash once.
2. <input type="button" value="PROG"/>	Press the [PROG] button. The LED will flash twice.
3. <input type="button" value="1"/> → <input type="button" value="2"/> → <input type="button" value="3"/>	Type in the 3-digit code for your TV, VCR, Cable Box, DSS or DVD. The LED will flash for each digit pressed.
4. <input type="button" value="PROG"/>	After you have entered the correct code, press [PROG]. The LED will flash three times.
5. <input type="button" value="TV"/> , <input type="button" value="CBL/SAT"/> , <input type="button" value="VCR/DVD"/> , or <input type="button" value="AUX"/>	Repeat steps one through four for each device.

### TV Device Codes

TV Manufacturer	TV Device Code
Admiral	585, 590, 594, 025, 049, 078, 133, 142
Akai	071
Amark	263
Anam	049, 047
Anam National	138, 154
AOC	593, 015, 014, 135, 146
Archer	263
Audiovox	263
Bell and Howell	590, 594, 614, 078
Brooksonic	586, 593, 338
Candle	014, 013, 023, 139
Capehart	135

TV Manufacturer	TV Device Code
Carver	128
Centurion	001
Citizen	132, 014, 046, 013, 139, 048, 023
Concerto	139
Contec / Cony	049, 163
Coronado	130, 132
Craig	600, 601, 602, 603, 049, 154
Croslex	592,
Crown	132
CTX	111
Curtis Mathes	603, 586, 590, 599, 132, 014, 046
CXC	049
Daewoo	611, 612, 617, 586, 309, 308, 306, 132, 015, 048, 067
Daytron	634, 132
Emerson	634, 586, 595, 600, 601, 602, 603, 618, 307, 010, 049, 132, 001, 025, 160, 163, 024, 171, 172, 338
Envision	014
Fisher	604, 018, 153
Fortress	142
Fujitsu	025
Funai	049, 025, 331
Futuretech	049
GE	632, 585, 586, 598, 439, 179, 133, 011, 012, 137, 134, 138, 038, 159, 001, 172
GE Combo	179
Goldstar	622, 626, 634, 638, 608, 586, 593, 597, 015, 132, 139, 122, 083, 001
Goldstar TV/VCR Combo	029
Griswold	069, 169
Hallmark	001
Hitachi	634, 636, 609, 586, 016, 150, 132, 131, 139, 054, 158, 008, 176, 358
Infinity	128
JBL	128
J.C. Penney	632, 608, 586, 133, 132, 011, 124, 015, 014, 046, 145, 148
JVC	606, 607, 273, 136, 157, 359

TV Manufacturer	TV Device Code
Kenwood	014
Kloss	013
Kloss Novabeam	126
KMC	083
Konka	442
KTV	637, 634, 586, 603, 610, 615, 163, 132, 049, 171
Linatech	069, 169
Lodgenet	079
Logik	078
Luxman	139
LXI	585, 586, 592, 593, 596, 599, 604, 018, 081, 133, 128, 019
LXI Combo	205
Magnatron	111
Magnavox	623, 634, 619, 605, 586, 592, 593, 128, 014, 126, 125, 127, 143, 023, 164
Marantz	014, 128
Memorex	018, 078, 337
MGA	177, 149, 014, 015, 151, 001
Mitsubishi	635, 586, 593, 149, 015, 001, 071, 151, 038, 002
MTC	015, 014, 046, 139, 067
Multitech	168
NAD	081, 060
NEC	586, 593, 427, 139, 014, 015, 021
Onwa	049
Optimus TV/VCR	029, 018, 132, 020, 049, 130
Optonica	142, 020
Panasonic	625, 632, 596, 597, 598, 262, 209, 210, 211, 212, 259, 176, 207, 208, 206, 134, 138, 155, 128
Philco	634, 586, 592, 128, 015, 014, 125, 126, 127, 023, 164
Philips	592, 128, 038
Pioneer	598, 599, 613, 060, 131
Portland	633, 586, 132, 015
Proscan	438, 133, 145, 015, 124, 137, 131, 159, 169, 332

TV Manufacturer	TV Device Code
Proton	129, 132, 001, 135
Pulsar	079
Quasar	632, 624, 610, 598, 262, 209, 210, 211, 212, 259, 176, 207, 208, 206, 134, 138
Radio Shack	635, 603, 604, 585, 593, 132, 020, 049, 130, 139
Radio Shack TV/VCR Combo	029
RCA	620, 621, 627, 632, 633, 585, 586, 587, 588, 589, 592, 324, 326, 133, 145, 015, 124, 137, 131, 159, 169
Realistic	018
Realistic TV/VCR Combo	029
Sampo	014, 135, 144
Samsung	634, 605, 586, 593, 415, 416, 418, 429, 435, 046, 130, 139, 015, 014, 132, 330
Samsung Combo	050, 330
Sanyo	604, 018, 153, 147
Scott	593, 603, 049, 025, 132, 010
Sears	128, 018, 147, 133, 139, 019, 148, 081, 153, 156, 001, 025
Sharp	634, 594, 595, 142, 020, 132, 017
Signature 2000	602, 606, 590, 594, 078
Sony	584, 585, 586, 587, 038, 141, 123, 039, 170, 373
Soundesign	049, 001, 023
Spectracon	146
SSS	015, 049
Supre-Macy	013
Sylvania	586, 592, 593, 128, 014, 126, 125, 127, 140, 023, 164, 360
Symphonic	603, 615, 616, 049, 025, 331
Tandy	213, 142
Tatung	138
Technics	134
Techwood	139
Teknika	139, 132, 046, 078, 015, 013, 048, 149, 025, 049, 023
Tera	129



TV Manufacturer	TV Device Code
Thomson	166, 167
TMK	139, 001
Toshiba	616, 594, 599, 081, 018, 046, 148, 357
Tosonic	163
Totevision	132
Universal	011, 012
Vector Research	014
Victor	136
Video Concepts	071
Vidtech	609, 592, 593, 015, 001
Viking	013
Montgomery Ward	011, 012, 128, 078, 015, 125, 127, 137, 014, 143, 020, 159, 001, 164
Wards	634, 586, 592, 593, 595, 025
Yamaha	015, 014
York	001
Zenith	589, 590, 591, 079, 078, 369, 371, 372
Zenith Combo	029
Zonda	263, 029

### VCR Device Codes

VCR Manufacturer	VCR Device Code
Admiral	189, 191, 080, 178, 179
Aiwa	315, 316, 226, 204, 333, 341, 343
Akai	072, 052, 051, 022, 073, 342
Audio Dynamics	192
Bell and Howell	080
Brooksonic	191, 189, 026, 340, 338
Canon	176, 187, 059
Carver	185
Citizen	026
Consonic	111
Craig	050, 035, 061
Curtis Mathes	176
Daewoo	308, 199, 175, 002

VCR Manufacturer	VCR Device Code
Daytron	175
DBX	192
Dynatech	204
Emerson	441, 278, 307, 191, 189, 009, 204, 057, 053, 029, 073, 183, 032, 026, 338
Fisher	055, 035, 031, 028
Funai	204
GE	317, 318, 320, 321, 322, 192, 176, 179, 181, 368
Go Video	406, 432, 050, 197, 200
Goldstar	029, 174, 027
Harman Kardon	265, 027
Hitachi	176, 036, 075, 069, 204, 072, 181, 037, 201, 358
Instant Replay	218, 176
J.C. Penney	036, 176, 050, 027, 033
JCL	176
Jensen	072
JVC	072, 182, 193, 084, 194, 334, 359
Kenwood	034, 072, 182
Lloyd	204
Logik	030
LXI	029
LXI Combo	205
Magnavox	176, 185, 190, 188
Marantz	176, 027, 185
Marta	029
MEI	176
Memorex	176, 029, 178, 204, 080, 035, 055, 341
MGA	177, 176, 073
Minolta	069, 036
Mitsubishi	265, 266, 176, 177, 073
MTC	204, 050
Multitech	204, 030
NAD	058
NEC	426, 267, 027, 033, 072, 182, 074
Optonica	178

VCR Manufacturer	VCR Device Code
Optimus TV/VCR Combo	029, 050, 178, 204, 176, 034, 035, 028, 055, 262
Panasonic	367, 374, 262, 209, 210, 211, 212, 206, 207, 208, 176, 187, 184
Pentax	069, 036, 181
Philco	176
Philips	176, 185, 188
Pilot	029
Pioneer	058, 182
Portland	175
Pulsar	080
Proscan	179
Quartz	034
Quasar	262, 209, 212, 207, 176, 187, 186
Radio Shack TV/VCR Combo	029
RCA	443*, 179, 322, 323, 324, 206, 179, 181, 184, 176, 036, 069, 190, 192, 317, 318, 320
Realistic	029, 050, 178, 204, 176, 034, 035, 028, 055
Ricoh	042
Samsung	050, 002, 051, 330
Sansui	182, 072, 061, 074
Sanyo	034, 035, 055
Scott	189, 009, 002, 191
Sears	176, 270, 035, 034, 031, 029, 036, 028, 055, 069
Sharp	258, 178
Shintom	030
Sony	436, 176, 041, 042, 040, 173, 043, 038, 375, 377, 379
STS	036
Sylvania	176, 177
Symphonic	204, 331
Tandy	204
Tashiko	026
Tatung	072

VCR Manufacturer	VCR Device Code
Teac	072, 204
Technics	176
Teknika	029, 176, 204, 056
TMK	053
Toshiba	002, 177, 028, 009
Totevision	050, 029
Unitech	050
Vector Research	033, 027
Victor	084, 182
Video Concepts	033, 073
Videosonic	050
M. Ward	036, 176, 178, 204, 035, 030, 190, 009, 050
Yamaha	027, 072
Zenith	080, 042, 041, 029

\* Power off button on this model RCA is mapped to the Mute button on *inVoca*.

### Cable Box Device Codes

Box Manufacturer	Cable Box Device Code
ABC	091, 096, 088, 093
Antronix	241
Archer	227, 271, 241, 111
Century	111
Citizen	111
Comcast	325, 329, 428
Comtronics	106, 045
Cox	120
Digital Entertainment	433
Eagle Comtronics	045
Eastern	086
Electricord	004
Explorer 2000	120
GC Electronics	063
Gemini	064, 068, 095, 116
General Instruments	091, 087, 094, 362
Hamilton	346, 347, 348

Box Manufacturer	Cable Box Device Code
Hamlin	118, 119, 085, 090, 103, 311, 312
Hitachi	091
Jasco	111
Jerrold	325, 329, 305, 249, 251, 272, 094, 091, 087, 095, 100, 101, 104, 108, 350
Kingston	111
Macom	003
Media One	413
Memorex	076
Motorola Digital	325, 329 (with volume), 428
Movie Time	004, 112, 113
Novaplex	434
NSC	112, 113
Oak	088, 097, 007
Panasonic	313, 099, 109
Paragon	076
Philips	238, 239, 252, 253, 300, 106, 102
Pioneer	005, 070, 062, 344
Popular Mech.	400
Pulsar	076
RCA	099
Regal	120, 118, 085, 119, 346, 347, 348
Regency	086
Rembrandt	068
Samsung	045, 005
Scientific Atlanta	089*, 096, 120, 314
Signal	045
Signature	091
SL Marx	045
Sprucer	099, 121
Standard Compnt	065
Starcom	095, 087, 104, 108
Stargate	423, 045, 095
Sylvania	082
Tandy	117
Teknika	006
Telecaption	115
Texscan	082, 107

Box Manufacturer	Cable Box Device Code
Tocom	310, 093, 092, 105
Toshiba	076
TV86	424
Unika	227, 241, 111
United Artists	088
Universal	241, 227, 271, 066, 004, 044, 111
U.S. West	412
Viewstar	106, 117, 110, 114
West	111
Zenith	237, 076, 077

\* Scientific Atlanta code 089:  on *inVoca* is power off. Press  for Power On and Recall.

### DVD Player Device Codes

DVD Manufacturer	DVD Device Code
Apex	380
California Audio	382
Denon	381, 387, 391
Fisher	382
GE	383, 384
Goldstar	395
JVC	354, 378
Kenwood	401
KLH	407
Kyocera	381
Magnavox	385, 399
Mitsubishi	356, 399
Optimus	394
Oritron	425
NAD	399
Panasonic	335, 382, 402, 403, 404, 405
Philips	440, 385
Pioneer	409, 355, 398, 399
Proscan	383, 384, 339
Quasar	382

DVD Manufacturer	DVD Device Code
RCA	417, 437, 339, 383, 384, 388
Realistic	394
Samsung	396
Sanyo	411, 397
Sharp	401
Sony	351, 386
Teac	389, 390
Technics	382, 404, 405
Theta-Digital	385
Thompson	383, 384
Toshiba	336, 392, 398, 401
Yamaha	393, 400, 403
Zenith	395

#### DSS Receiver Device Codes

DSS Manufacturer	DSS Device Code
DishNet	419, 420, 376
General Instrument	414, 362
Hitachi	352
Hughes	363
Panasonic	410
Primestar	322, 362
RCA**	365, 408, 431, 320, 327
Sony	321, 328
Uniden	430

\*\* RCA Direct: use  to turn on receiver,  to turn off.



#### Working with DSS On-Screen Menus



Remote Key Name	Screen Menu Function
<b>REC</b>	Menu
<b>Pause</b>	Select
<b>Play</b>	Menu +
<b>Stop</b>	Menu -
<b>Rew</b>	Menu L
<b>FF</b>	Menu R

#### Miscellaneous Devices

Manufacturer	Device Code
TIVO	421
Panasonic Replay	422
WebTV	420

## SUMMARY OF BUTTON FUNCTIONS

In order to increase the power of the *inVoca*, some buttons perform multiple functions. The following table summarizes the function of each button when pressed by itself and when preceded by either the  or the  button. You should experiment to find all the available functions for your particular device. Buttons not listed perform the function printed on the remote control only.

Button	Normal	Preceded by:	
			
[TV]	TV	TV	TV
[CBL/SAT]	CBL/SAT	CBL/SAT	CBL/SAT
[AUX]	AUX	AUX	AUX
[VCR/DVD]	VCR/DVD	VCR/DVD	VCR/DVD
[WakeUp]	Listen	Switch personality	Switch personality
[Power]	Power	Power	Power
[Mute]	Mute	Toggle Auto-Mute	Toggle Auto-Mute
[Prev]	<i>Last Channel Recall</i>	<i>Display</i>	<i>Adjust VR thresh **</i>
[VOL+]	<i>Vol+</i>	<i>Fast Volume 4 +</i>	<i>Fast Volume 8 +</i>
[VOL-]	<i>Vol-</i>	<i>Fast Volume 4 -</i>	<i>Fast Volume 8 -</i>
[CH+]	<i>CH+ or Next Chapter/Track/Preset</i>	<i>PIP CH +</i>	<i>PIP CH+</i>
[CH-]	<i>CH- or Next Chapter/Track/Preset</i>	<i>PIP CH -</i>	<i>PIP CH -</i>
[F1]	play macro 1	play macro 1	play macro 1
[F2]	play macro 2	play macro 2	play macro 2
[F3]	play macro 3	play macro 3	play macro 3
[F4]	play macro 4	play macro 4	play macro 4
[Learn/M]	Learn Macro	Learn Macro	Learn Macro
[PROG]	Program Device Selection	<i>Menu</i>	Guide
[Train]	New word	New Keyword	Delete word
[Auto]	Activate Priority Press & Auto-search	Toggle Word-Spotting	Toggle Word- Spotting
[Enter]	<i>Enter</i>	<i>Select</i>	<i>10+</i>
[TV/Vid]	TV/VCR AM/FM Deck A/B	Toggle listen for personality on wakeup	Toggle listen for personality on wakeup
[REC]	<i>Record</i>	<i>Record</i>	<i>Erase memory</i>
[Pause]	<i>Pause</i>	<i>Up arrow</i>	<i>Increase Macro Delay</i>
[Rew]	<i>Rewind</i>	<i>Left Arrow</i>	<i>Delete Personality</i>
[Play]	Play	Test Voice Cmd **	Play
[FF]	<i>Fast Forward</i>	<i>Right arrow</i>	<i>Fast Forward</i>
[Stop]	<i>Stop</i>	<i>Down arrow</i>	<i>Reset/ Exit/ Clear</i>
[TRAIN]	<i>Train new voice command</i>	<i>Train new keyword</i>	<i>Delete Voice Command</i>

\*\* for technician use only.

## INDEX

adjust macro repeat . . . . .	35	microphone . . . . .	21
adjust wake time . . . . .	34	microphone sensitivity . . .	21
advanced features . . . . .	26	multi-string macro . . . . .	21
advanced functions . . . . .	31	personalities . . . . .	26
auto search . . . . .	36	priority press . . . . .	23
auto-mute . . . . .	25	programming, erasing . . . .	21
battery installation . . . . .	44	prompts . . . . .	28
button functions . . . . .	56	punch through . . . . .	21
button macros . . . . .	31	read back code . . . . .	38
cancel training . . . . .	18	recording . . . . .	26
changing voice commands . . .	18	repeat . . . . .	29
channel scan . . . . .	20	resetting <i>inVoca</i> . . . . .	21, 34
choose different word . . . . .	30	scan . . . . .	20
choosing commands . . . . .	17	searching for codes . . . . .	36
delay . . . . .	33	set-up . . . . .	9
deleting voice commands . . .	18	special commands . . . . .	33
device buttons . . . . .	6	special features . . . . .	19
entertainment system . . . . .	9	substitute devices . . . . .	38
erasing . . . . .	21	suggested vocabulary . . . . .	42
fast volume . . . . .	19	Tape recording . . . . .	26
frequently asked questions . . .	39	teaching <i>invoca</i> . . . . .	10
index of device codes . . . . .	45	too loud . . . . .	30
keywords . . . . .	26	too soft . . . . .	29
LED . . . . .	30	using voice commands . . . .	16
macro . . . . .	10, 21, 31	VCR recording . . . . .	26
macro repeat . . . . .	35	vocabulary . . . . .	42, 43
macros explained . . . . .	2	voice training . . . . .	10
manual search . . . . .	36	wake time . . . . .	34
memory full . . . . .	29	word spotting . . . . .	33

**WARRANTY, TECHNICAL SUPPORT, AND  
COPYRIGHT INFORMATION**

**Kash N Gold Ltd.**

Sole Distributors For TELEMANIA™ Products

**Limited Warranty**

Kash N Gold warrants to the original purchaser that this product is free from defective materials and workmanship for a period of 1 year from date of original purchase.

Should a failure occur in normal usage during the 1 year warranty period. Kash N Gold will repair or, in its discretion, replace this product without charge (except for a \$10 charge to cover: handling, packing, and return postage or freight). This warranty excludes (A) Damages due to misuse, negligence abuse or accidents. (B) Repairs by persons not authorized by Kash N Gold and (C) AC cords, or other accessories where applicable (D) Installation, improper maintenance or commercial use (E) Cracked or broken cabinets (F) Acts of GOD.

When returning this product (A) Enclose a copy of your sales slip to verify warranty service. (B) Include explanation of defect problem (C) Enclose check or money order for \$10 payable to Kash N Gold Ltd. (D) Forward prepaid and insured.

All products sent after the warranty period or without proof of date of sale will be serviced on an out-of-warranty basis.

This warranty is valid only in the United States, and does not extend to owners of the product subsequent to the original purchaser.

In the United States, this warranty gives you specific legal, rights, and your rights may vary from state to state.

**Kash N Gold Ltd.**

1 Trade Zone Court, Ronkonkoma,  
NY 11779, U.S.A.  
1-800-354-8785

In accordance with "Moss Magnuson warranty act" of July 10, 1975 this is termed a "Limited" warranty, which in no way compromises Kash N Gold high standards of quality and workmanship.

*inVoca* is a trademark of Kash N Gold Ltd.

© 2000, 2001 Innotech Systems Inc. All rights reserved. No part of this publication may be reproduced, transmitted, transcribed, or stored in any retrieval system without the prior written permission of Innotech Systems Inc.

Innotech Systems Inc. is a registered trademark of Innotech Systems Inc. Priority Press and Fast Volume are trademarks of Innotech Systems Inc. All other marks are the property of their respective owners.


For support and service, visit the *inVoca*  
Web site at [www.invoca.com](http://www.invoca.com) or call  
1 (800) 200-7700

Requires 4 AA batteries (not included)  
USE ALKALINE BATTERIES ONLY

Telemania Model: *inVoca* Remote

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

TELEMANIA™ *inVoca*  
Remote

 TESTED TO COMPLY  
WITH FCC STANDARDS

FOR HOME OR OFFICE USE