

READ THE WHOLE BOOKLET. KEEP IT IN A SAFE PLACE FOR REFERENCE AND SAVE THE BOX FOR STORAGE.

# HEAROID™

## INSTRUCTION MANUAL

**CAUTION:** ELECTRICALLY OPERATED PRODUCT NOT RECOMMENDED FOR CHILDREN UNDER 9 YEARS OF AGE. AS WITH ALL ELECTRIC

PRODUCTS, PRECAUTION SHOULD BE OBSERVED DURING HANDLING AND USE TO PREVENT ELECTRIC SHOCK.

**NME:**

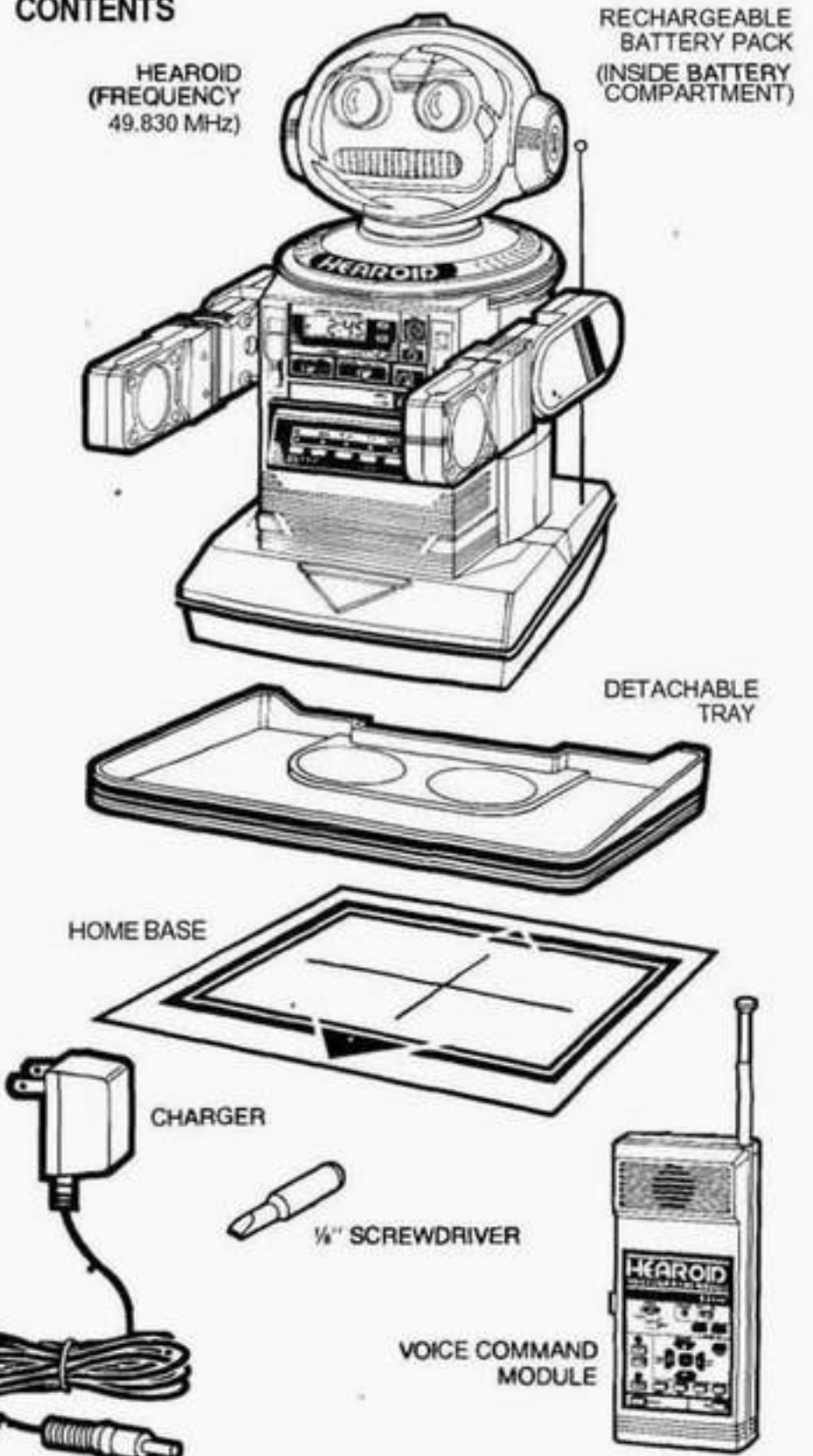
HEAROID SHOULD NOT BE OPERATED UNTIL THE BATTERY PACK HAS BEEN CHARGED. BATTERY PACK SHOULD BE CHARGED BY ADULTS ONLY. CHARGING WILL TAKE 12-16 HOURS. IN SOME CASES, IT IS POSSIBLE THAT HEAROID MAY RUN BEFORE CHARGING. IT IS VERY IMPORTANT THAT

YOU DO NOT USE HEAROID AT THIS TIME—CHARGE THE BATTERY PACK FIRST (12-16 HOURS). IF YOU DO NOT CHARGE A FULL 12-16 HOURS BEFORE USE, YOU WILL SEVERELY SHORTEN BATTERY PACK'S LIFE. THIS IS VERY IMPORTANT.

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**CAUTION:** PICK UP HEAROID BY THE BASE, NEVER BY THE ARMS.

**BEFORE YOU START YOU WILL NEED:**  
 6 "AA" Alkaline Batteries • Small Phillips Screwdriver

IF YOU HAVE ANY QUESTIONS, WRITE TO TTC AT  
 2209 EAST 223rd STREET / CARSON, CA 90810,  
 OR CALL (213) 834-8825.

# I. INTRODUCTION AND FEATURES

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Greetings. My name is HEAROID. I will be at your service **AFTER** you learn to program your commands into my memory banks. I will not follow your instructions, however, if you do not follow this instruction booklet. **THIS WILL TAKE TIME.** If you jump into setting up or using me before you've read **each section in its entirety and in proper sequence**, you may become frustrated. So, sit down, relax, and

read. You will discover many exciting features that you might have overlooked by hurrying. Save this booklet. Keep it handy for future reference. I look forward to being your humble servant.

Robotically yours,  
HEAROID

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## NOTE:

You will learn how to install and charge my Battery Pack in the next two sections. Once the Battery Pack is charging, you will be able to read the sections

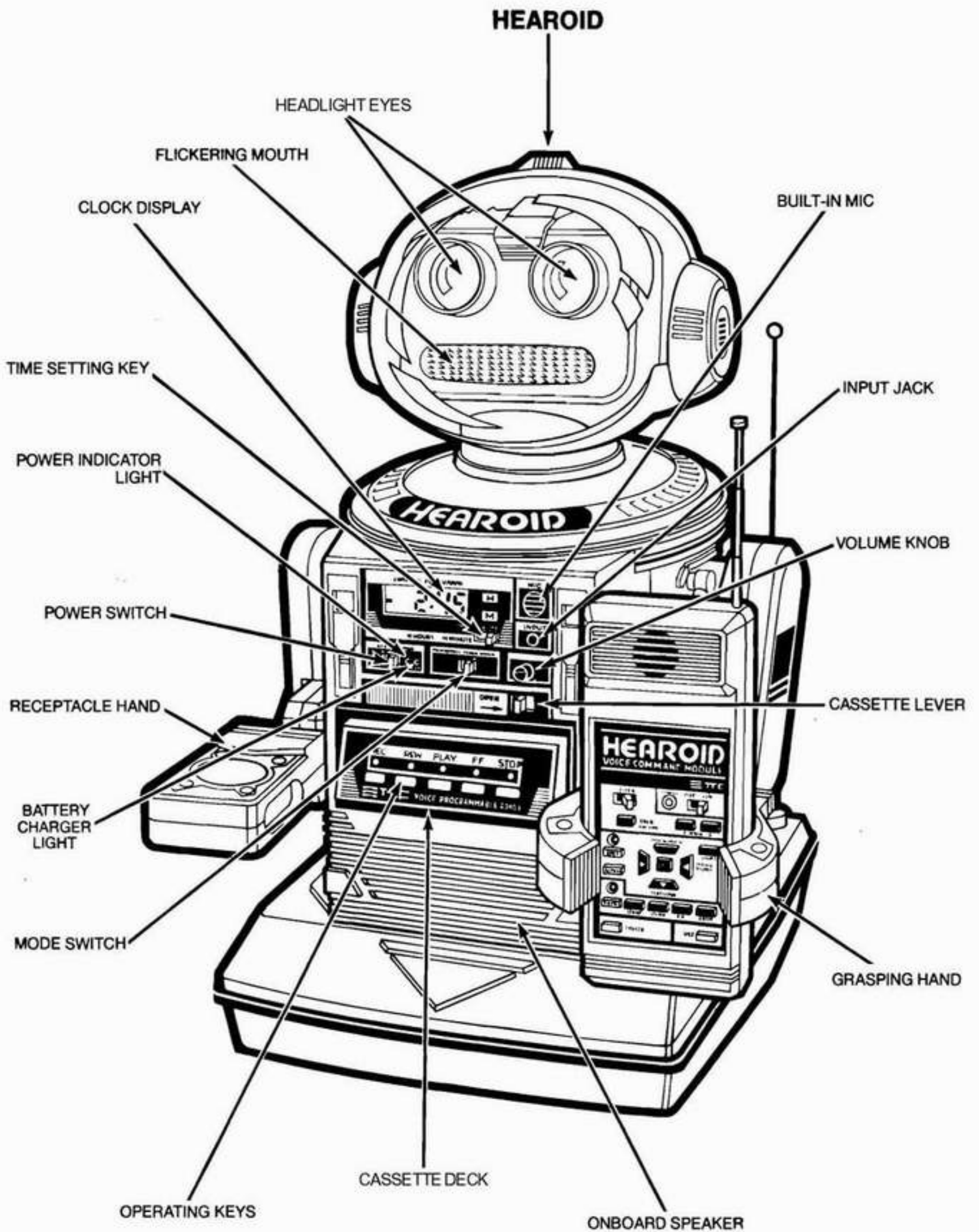
which follow, including the Voice Command Module—Train Mode (section VIII). The Train Mode is the most difficult section. You can perform all the steps in the TRAIN section while my Battery is charging.

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## MY FEATURES

- A built-in Digital Alarm Clock
- A built-in Cassette Deck
- A programmable timer to start tapes at any time
- Automatic end-of-tape shut-off
- An onboard speaker to project your voice and mix with pre-recorded music
- Wireless Voice Command Module to transmit voice and remote control commands
- Program robot movements and your voice onto tape for future playback
- Robot and Cassette Deck can be controlled by two Users
- A detachable tray for carrying, delivering, and retrieving objects
- A Home Base to assist in programming functions
- Headlight eyes activated by your voice or remote control
- Flickering mouth synchronized to your voice or music
- An Accessory Interface Panel to add on accessories

# INTRODUCTION AND FEATURES (CONT'D)



# II. BATTERIES AND FUSE

## WARNING:

PLEASE DO NOT OPERATE ME UNTIL I HAVE BEEN FULLY CHARGED. MY BATTERY PACK TAKES 12–16 HOURS TO FULLY CHARGE. IN SOME CASES, IT IS POSSIBLE THAT I WILL OPERATE BEFORE CHARGING. IT IS VERY IMPORTANT THAT YOU DO NOT USE ME AT

THIS TIME—CHARGE MY BATTERY PACK FIRST! IF YOU FAIL TO DO THIS, YOU MAY RUIN MY POWER SOURCE OR SEVERELY SHORTEN MY BATTERY PACK'S LIFE. PLEASE HAVE AN ADULT CHARGE MY BATTERY PACK WHILE YOU ARE READING THIS INSTRUCTION MANUAL.

My Power Supply consists of:

- a) One 6 Volt Rechargeable Battery Pack (included)  
NOTE: THIS BATTERY PACK IS MADE ESPECIALLY FOR ME. DO NOT ATTEMPT TO USE ANY OTHER KIND OF BATTERY OR DAMAGE MAY RESULT. IF YOU NEED ANOTHER BATTERY PACK, USE THE ORDER FORM.
- b) Two "AA" Alkaline batteries(not included) for Clock/ Alarm Display
- c) Four "AA" Alkaline batteries (not included) for the Voice Command Module (VCM)
- d) One 6 Volt 5 Amp Fuse (included)

BATTERIES SHOULD BE INSTALLED AND REPLACED BY AN ADULT.

## SAFETY AND PRECAUTIONS

### WARNING:

NEVER TURN MY HEAROID POWER SWITCH ON WHILE MY BATTERY PACK IS CHARGING. NEVER OPERATE WHILE CHARGER IS CONNECTED TO MY BODY PLUG.

Batteries contain corrosive fluids and toxic materials. They should be handled with care. Do not mutilate, puncture, disassemble, or incinerate batteries!

## FIRST AID

If a battery case cracks or breaks open, do not touch the gel inside. If the gel comes in contact with your skin or clothing, follow these First Aid instructions:

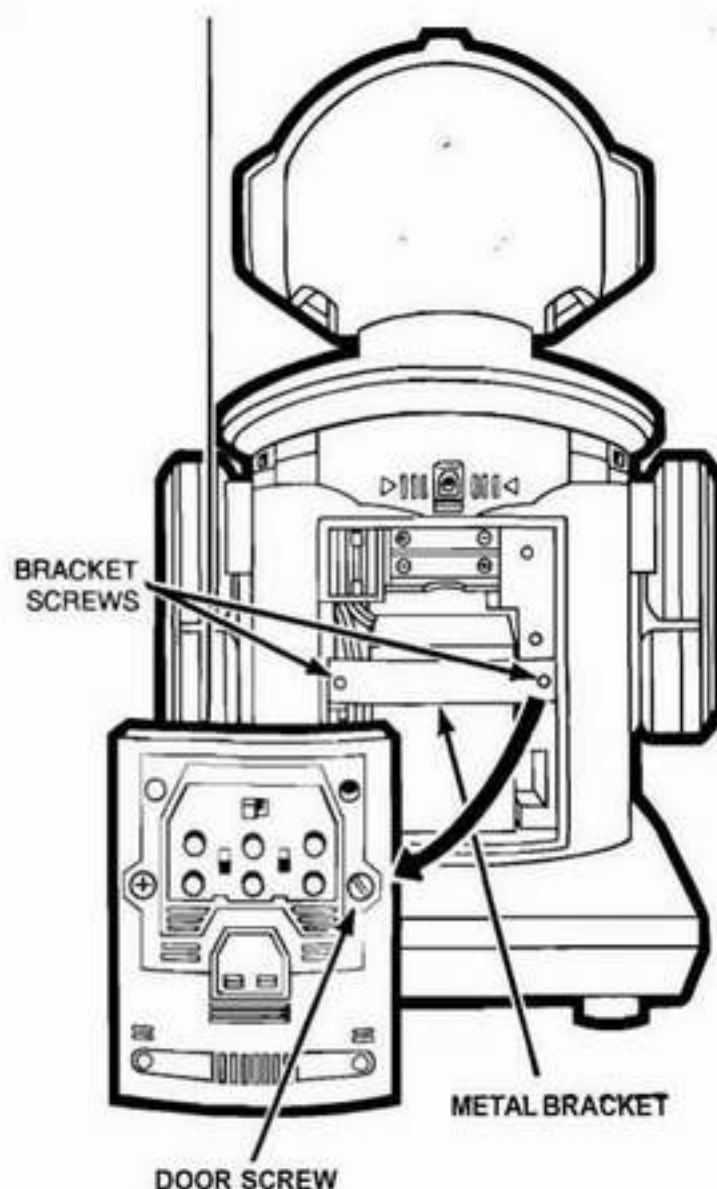
**EXTERNAL CONTACT**—Immediately flush skin or eyes with water for at least 15 minutes. Call a physician.

**INTERNAL CONTACT**—Give tap water, milk, or milk of magnesia. Give whites of eggs. DO NOT INDUCE VOMITING. Call a physician.

## TO INSTALL MY BATTERIES:

NOTE: Make sure my Power Switch is in the OFF position. (See illustration on Page 3.)

1. My Battery Compartment Door is located on my back.
  - a) Use a coin or screwdriver to remove my Door Screw.



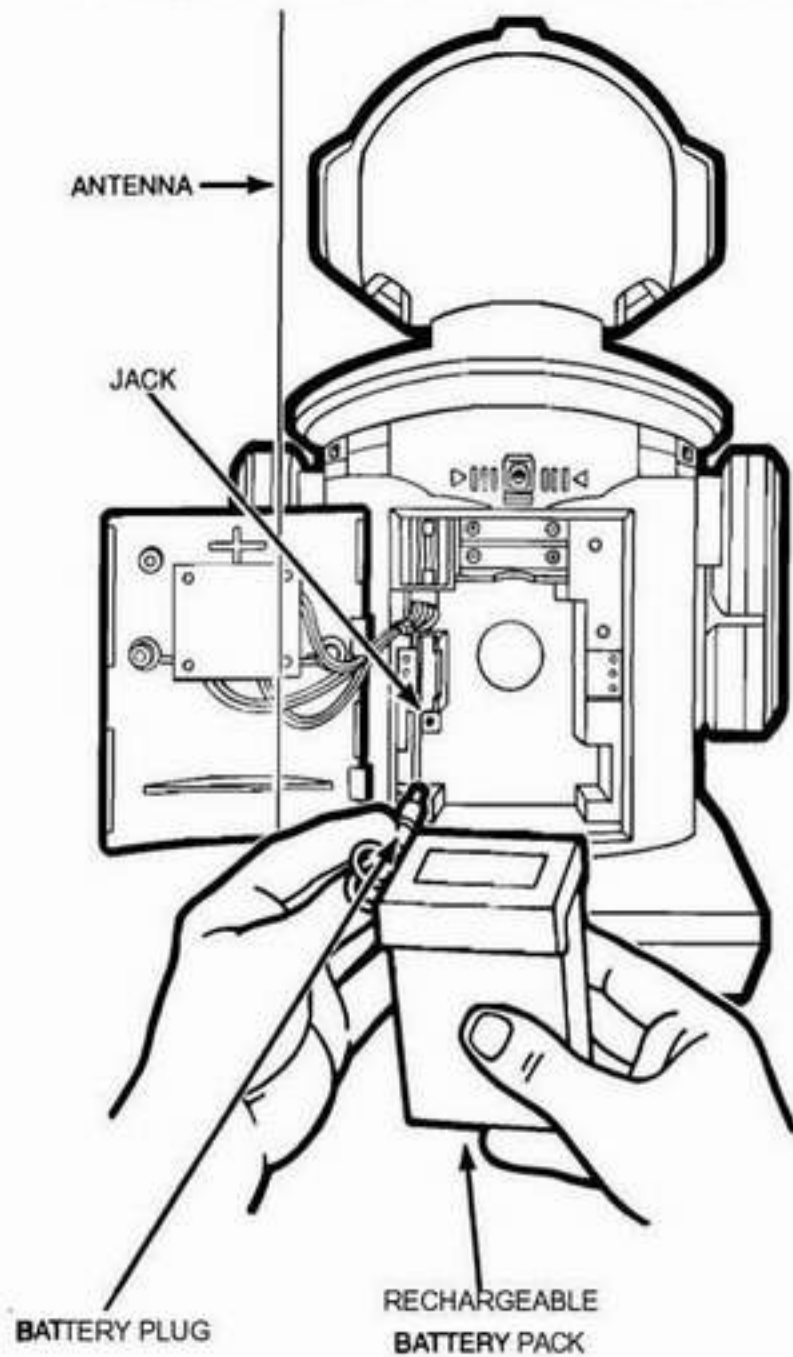
- b) CAREFULLY and SLOWLY remove my Door. Notice the bundle of wires. These connect to the Accessory Interface Panel; **the wires must remain connected**. Be careful when exposing the Battery Compartment. Take SPECIAL CARE when using the screwdriver or you may break the wire connections.

NOTE: You may find it helpful to place my Door behind my antenna (see illustration). This will allow you to freely have access to the Battery Compartment.

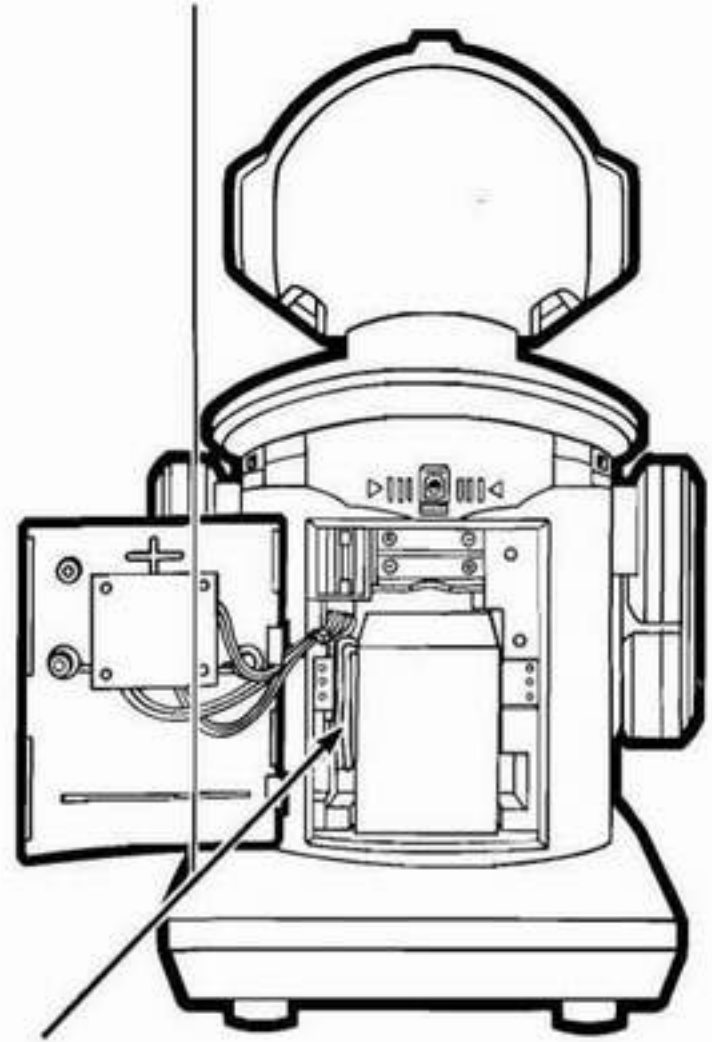
- c) Remove my Metal Bracket by removing the two Bracket Screws with a Phillips screwdriver.

## BATTERIES AND FUSE (CONT'D)

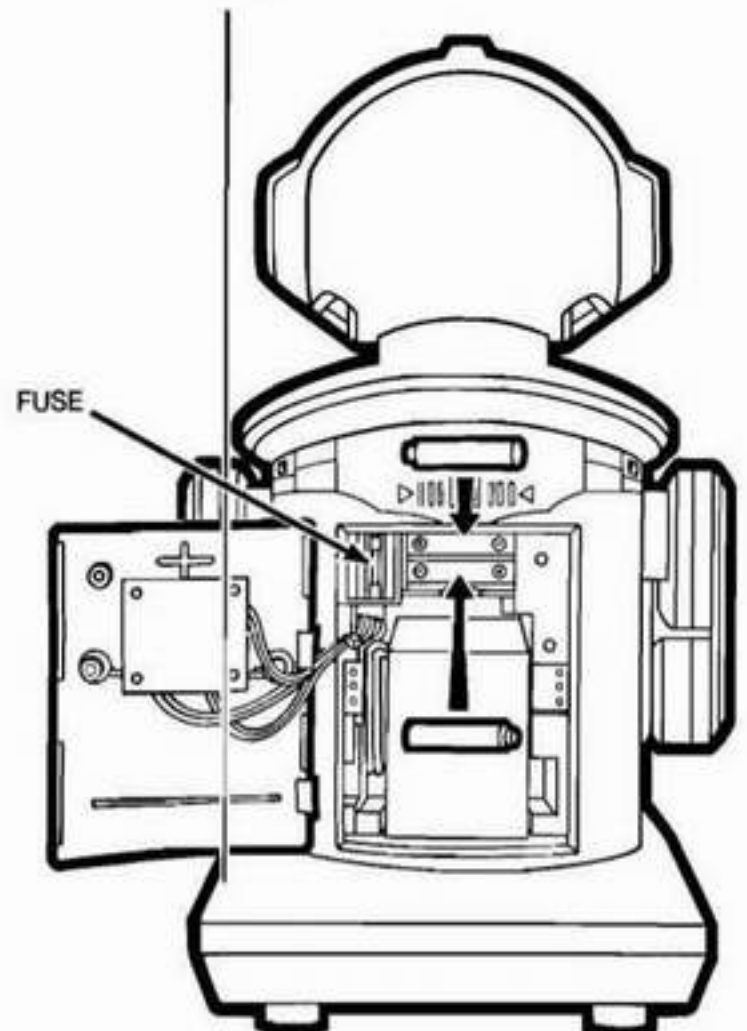
2. a) Carefully and slowly remove my Rechargeable Battery Pack.  
b) Connect my Battery Plug securely into the Jack.



3. Carefully replace my Rechargeable Battery Pack making sure to replace the wire as shown.

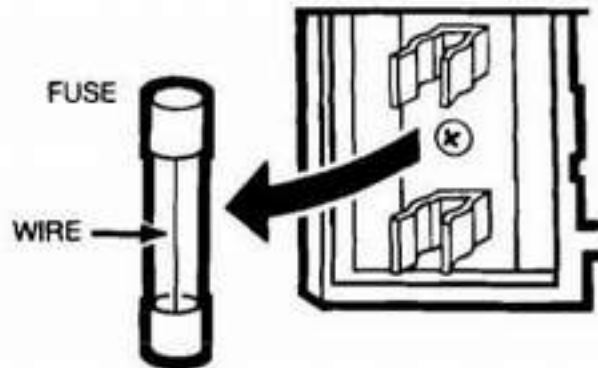


4. a) Insert 2 "AA" Alkaline Batteries(not included) as shown. These are the batteries that run my Clock/ Alarm Display.

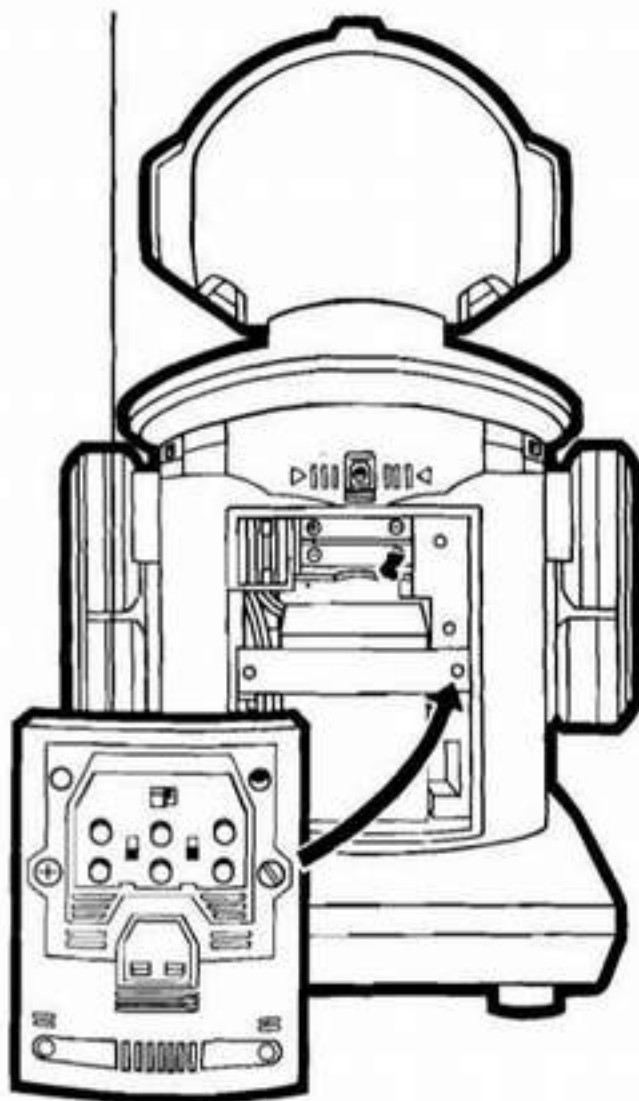


# BATTERIES AND FUSE [CONT'D]

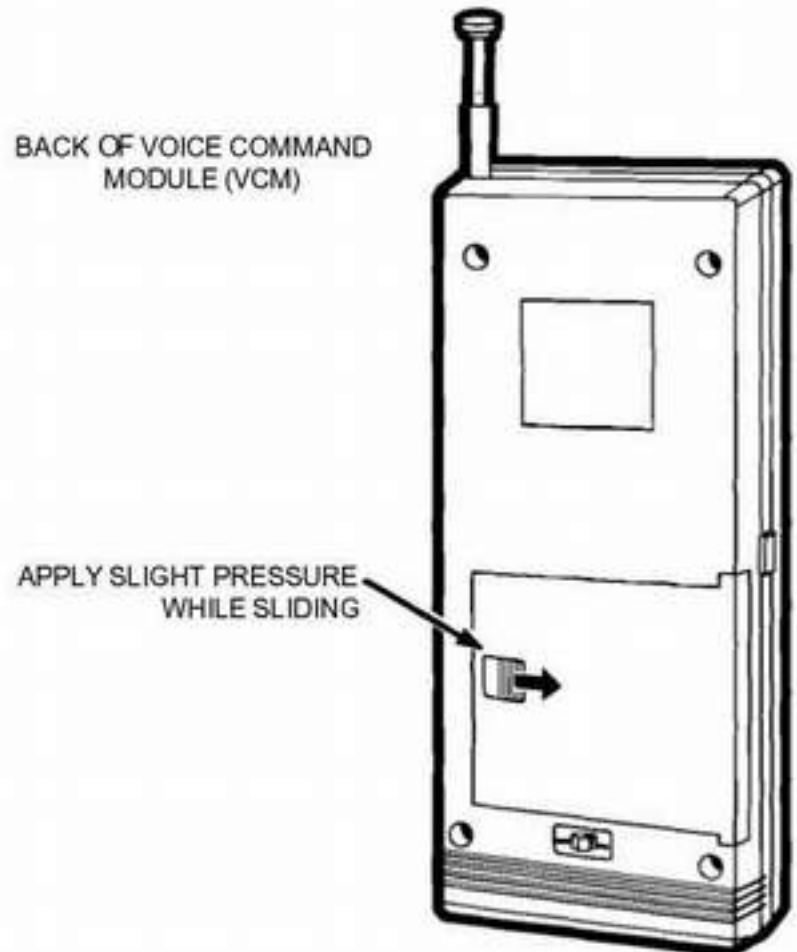
- b) Check my Fuse to make sure it is okay. Simply pull it out and inspect the wire inside my Fuse. If the wire is broken, my Fuse needs to be replaced.



- 5. a) Replace my Metal Bracket and tighten the two Bracket Screws with the Phillips screwdriver.
- b) CAREFULLY replace my Battery Compartment Door and secure it by turning the Door Screw with a coin or screwdriver. Do not over-tighten.

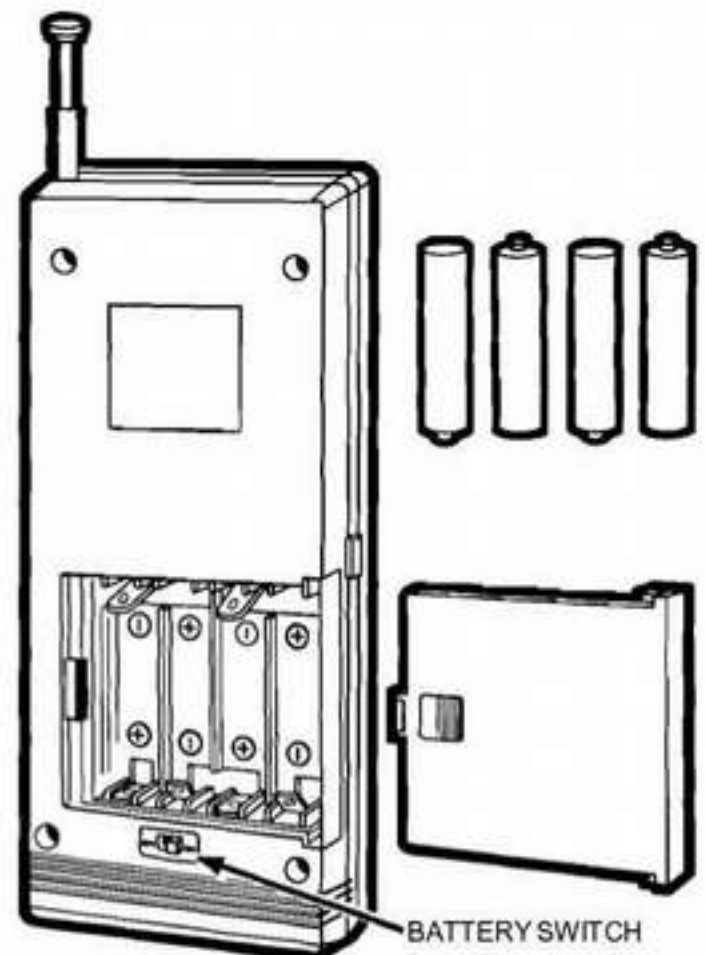


- 6. Remove the Battery Compartment Cover on the back of the Voice Command Module (VCM).



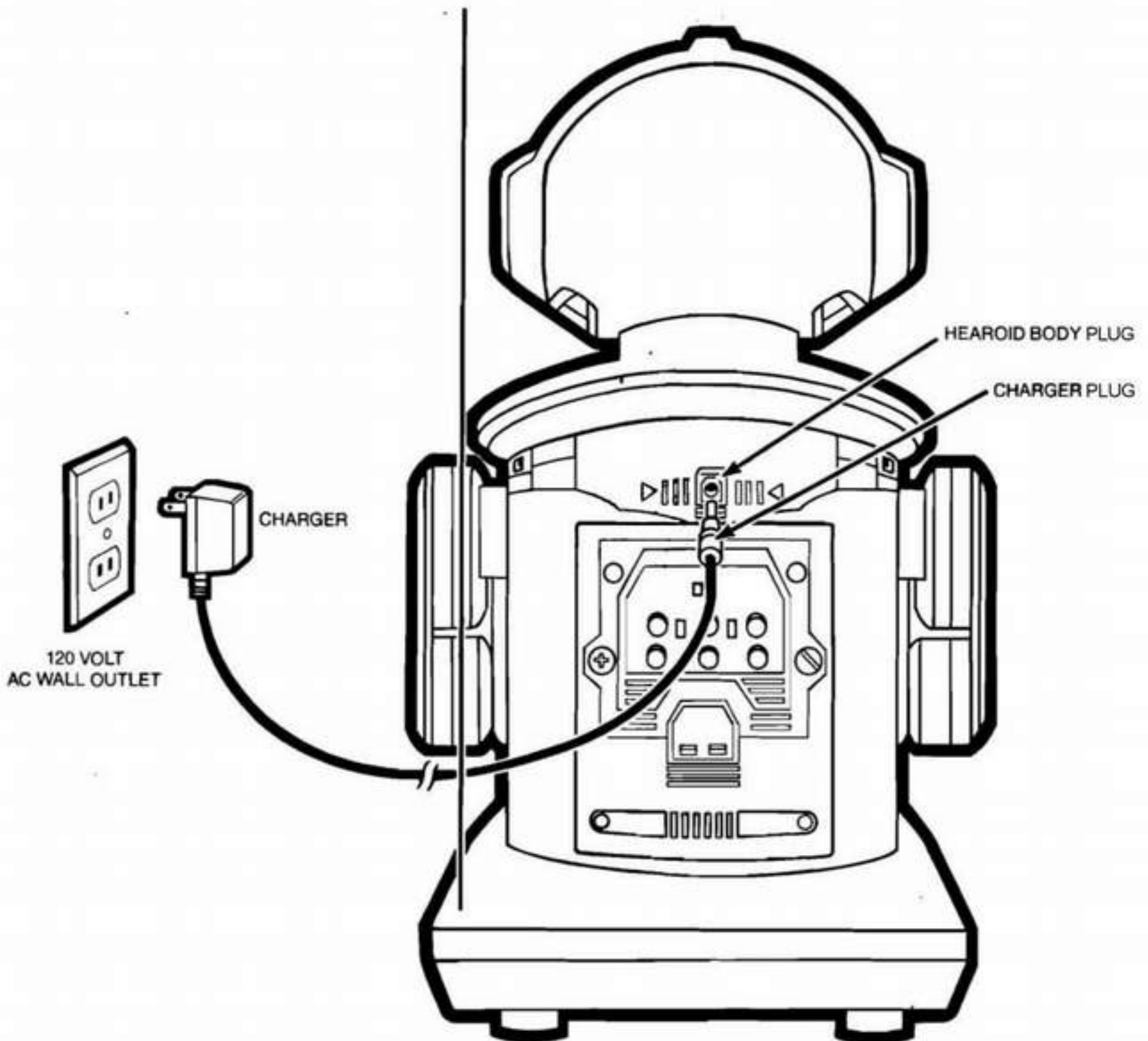
- 7. a) Insert 4 "AA" Alkaline Batteries as shown.
- b) Replace the Battery Compartment Cover.
- 8. Turn the Battery Switch on the VCM back to the ON position.

NOTE: ANY TIME YOU REPLACE OR REMOVE THE BATTERIES IN THE VOICE COMMAND MODULE, YOU MUST RETRAIN. SEE SECTION VII (TRAIN MODE) FOR VOICE TRAINING.



# III. CHARGING THE BATTERY PACK

My Battery Pack will require charging for 12–16 hours before using it for the first time.



NOTE: MAKE SURE MY HEAROID POWER SWITCH (SEE ILLUSTRATION ON PAGE 3) IS IN THE OFF POSITION.

TO CHARGE MY BATTERY PACK:

1. Place Charger Plug into Body Plug.
2. Plug Charger into wall outlet.  
NOTE: ALWAYS USE CHARGER INDOORS.

MY GOLDEN RULE: ALWAYS RECHARGE AFTER EACH USE AND WHEN I BEGIN TO SLOW DOWN. ALWAYS HAVE AN ADULT CHARGE MY BATTERY PACK.

WARNING: NEVER OPERATE WHILE CHARGER IS CONNECTED TO BODY PLUG OR SERIOUS DAMAGE WILL RESULT.

# CHARGING THE BATTERY PACK (CONT'D)

The Battery Charger Indicator Light, located next to my Power Light Indicator, will glow when my Battery Pack gets drained. It will not glow when drained, however, if my Hearoid Power Switch is in the TIMER position.



BATTERY CHARGER INDICATOR LIGHT

NOTE: The Battery Charger Indicator Light will momentarily glow when I am first activated. If it does not stop glowing, then my Battery Pack needs recharging.

## WARNING:

IF I AM TO BE YOUR CONTINUAL SERVANT, YOU MUST CONTINUALLY RECHARGE MY BATTERY PACK OR YOU WILL SEVERELY SHORTEN MY BATTERY PACK'S LIFE. ALL HEAROID UNITS WEAR DOWN FASTER WHEN CLIMBING STEEP INCLINES OR PLOWING THROUGH SHAG OR PILE CARPETING. I AM MOST OBEYANT AND EFFICIENT WHEN USED ON HARD, LEVEL SCIRFACES. THOUGH YOU SHOULD RECHARGE MY BATTERY PACK AFTER EVERY USE, DO NOT RECHARGE FOR MORE THAN 48 HOURS OR OVERCHARGING WILL RESULT.

THE CHARGER INCLUDED IS SPECIFICALLY DESIGNED TO RECHARGE HEAROID BATTERY PACKS. DO NOT USE ANY OTHER CHARGING UNIT. NEVER PULL ON WIRES. PULL ON PLUGS INSTEAD.

## CHECKPOINTS:

If I fail to function after my Battery Pack is recharged, check to make sure the wall outlet works. Also check to make sure:

- a) The Battery Plug is securely connected into the Jack.
- b) The Fuse is okay. (See Page 6.)

If I fail to operate, it is possible my Battery Pack is drained dead. You can reorder a new Battery Pack by filling out the Order Form and returning it.

## STORAGE:

If you plan to keep me stored away for a period of time, make sure you recharge my Battery Pack before putting me away. A full recharge without use will keep my Battery Pack charged for up to SIX MONTHS.

NOTE: AFTER RECHARGING AND BEFORE STORING ME, UNPLUG MY BATTERY PACK AND REMOVE THE 6 "AA" ALKALINE BATTERIES FROM MY COMPARTMENT AND VOICE COMMAND MODULE. **THIS WILL PREVENT POSSIBLE BATTERY LEAKAGE AND DAMAGE TO MY INSIDES.**

WHEN REMOVING ME FROM STORAGE, RECHARGE MY BATTERY PACK BEFORE USE.

## CHARGER (Technical Specifications):

Input 120 Volt A.C. 60 HZ 10W

Output 6 Volt D.C. 300mA

## PARENTS PLEASE NOTE:

PERIODICALLY EXAMINE CHARGER HOUSING AND CORD TO DETERMINE IF ANY DAMAGE HAS OCCURRED OR IF ANY HAZARD EXISTS. ANY CONDITION SHOULD BE CORRECTED IMMEDIATELY BEFORE USE. THE CHARGER SHOULD BE SAFELY STORED AWAY WHEN NOT IN USE AS WITH ALL ELECTRICAL APPARATUS. IT SHOULD NOT BE DROPPED OR ABUSED.

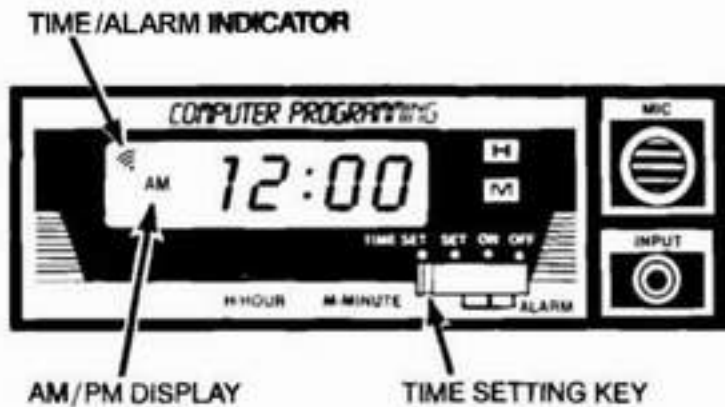
NOW THAT MY BATTERY PACK IS BEING CHARGED IT WOULD BE A GOOD TIME TO BECOME FAMILIAR WITH THE REST OF THIS BOOKLET.



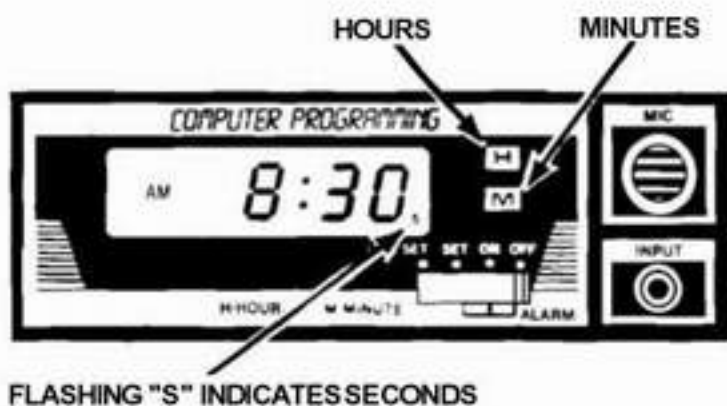
# IV. TIME OF DAY

The first phase of programming me is to learn how to set my digital alarm clock. Follow these simple instructions:

## A. SETTING THE CLOCK



1. Slide the Time Setting Key to the TIME SET position,  
NOTE: Whenever the Time Setting Key is positioned to TIME SET or SET, the Time/Alarm Indicator will appear above the AM/PM Display.



2. Advance the time of day by pressing the "H" and "M" buttons. Pressing "H" advances the hours; pressing "M" advances the minutes.  
NOTE: You must advance past all the AM settings to get to the PM settings. Pushing the "H" and "M" buttons once will advance the hours and minutes one unit at a time. Holding in the "H" and "M" buttons advances the time rapidly.
3. When you have entered the correct time, slide the Time Setting Key to the OFF position. This will lock in the time and keep you from accidentally changing it.

## B. SETTING THE ALARM

TO SET MY DIGITAL ALARM CLOCK TO ACTIVATE MY BEEPER ALARM:



1. Slide the Time Setting Key to the SET position. This is actually the ALARM SET position, as indicated by the brackets next to the word ALARM.  
NOTE: The word "ALARM" will appear below the AM/PM display.
2. Advance the time by pressing the "H" and "M" buttons, the same way you programmed the time of day.
3. When the alarm time is set, slide the Time Setting Key to the ON position. This is actually the ALARM ON position. The beeper will sound at the programmed time.
4. To turn the alarm beeper off, simply slide the Time Setting Key to the OFF position.

# V. BASIC CASSETTE OPERATION

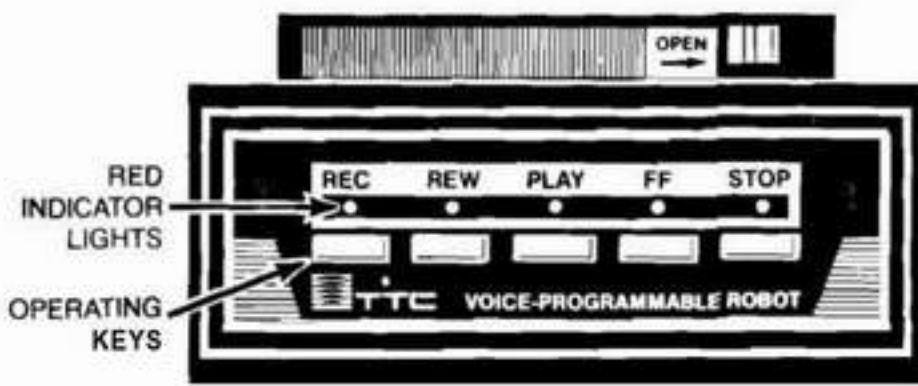
I have a built-in Cassette Deck. I play standard tapes (blank and pre-recorded). This section will help you protect and care for my Cassette Deck and your tapes.

**WARNING: BECAUSE MY CASSETTE DECK IS BUILT INTO MY HOUSING, EXTREME CAUTION MUST BE OBSERVED. BE CAREFUL AND GENTLE AT ALL TIMES WITH ALL OF THE CASSETTE FEATURES. DO NOT USE FORCE OR DAMAGE MAY OCCUR.**

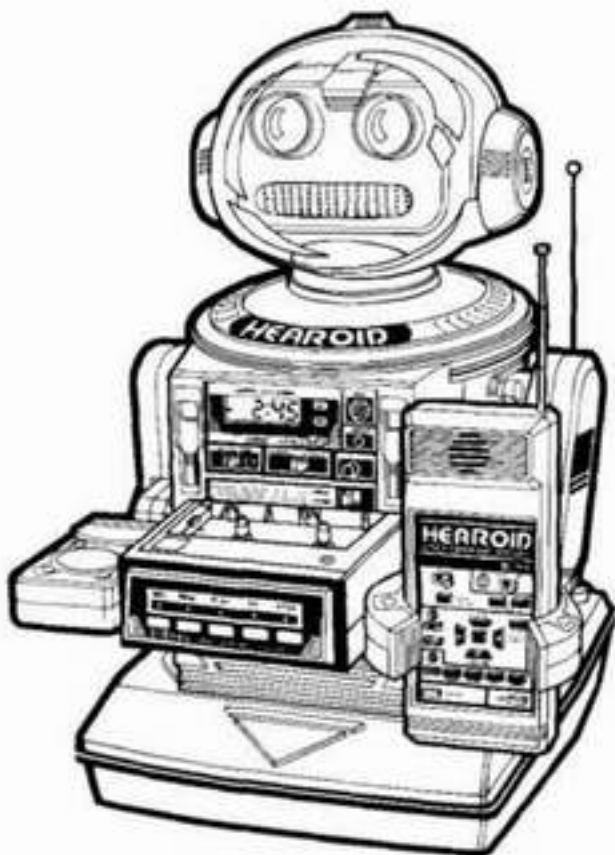
TO ENSURE SAFE AND LONG LASTING CARE OF MY CASSETTE DECK:

1. Do not use metal tapes. Use normal bias tapes.
2. Do not use tapes longer than C-60 (sixty minutes). I recommend C-30's or shorter. The shorter the tape, the better my performance.

## A. TO INSERT A CASSETTE:



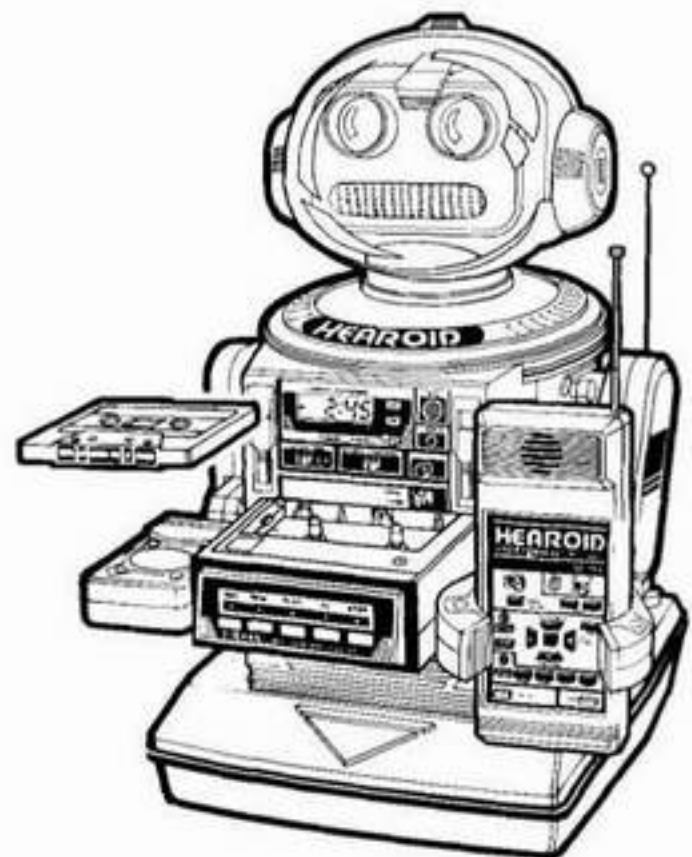
1. Cassette Deck should be off (no Operating Keys activated). Check for a glowing Red Indicator Light above the Operating Keys. If one of the lights is on, press the STOP key.
2. Slide the OPEN lever to the right.



3. Gently pull my Cassette Deck out like a drawer.



4. The exposed tape should be facing you, with the side you wish to play facing up.



5. Place the cassette into the compartment. Do not force the cassette into place or damage may occur.

NOTE: To play or record on your tape, make sure the side with the full reel of tape is to your left. If it is not, make sure to rewind it.

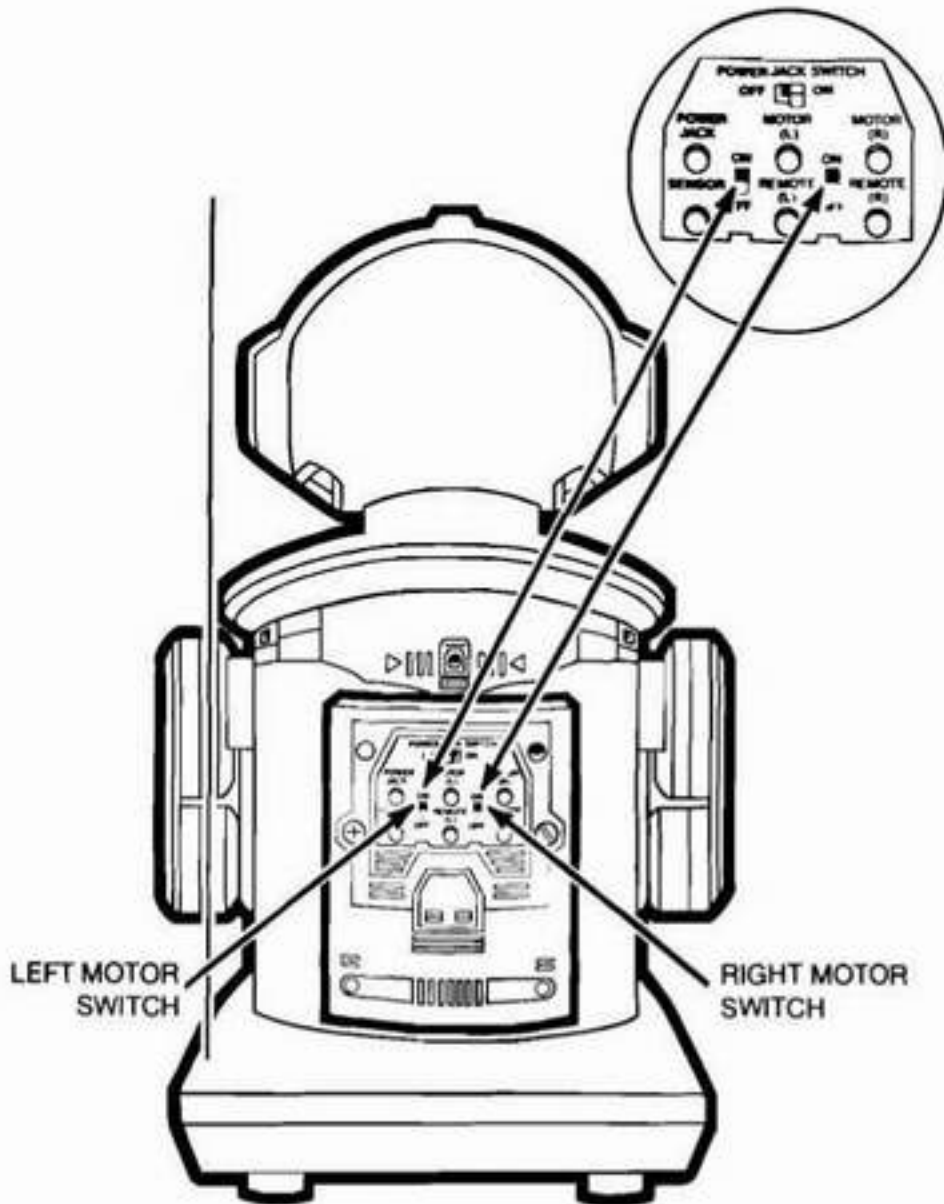
6. Push the Cassette Deck back into my housing until it locks in place.

NOTE: Do not operate my Cassette Deck until my Battery Pack is fully charged. There will be additional information on my Cassette Deck later on.

# BASIC CASSETTE OPERATION [CONT'D]

## B. TO PLAY A CASSETTE:

1. Hearoid Power Switch: ON. Be careful not to push the Power Switch to the **TIMER** position.



2. Look on my back. Make sure the Left and Right Motor Switches are in the ON position as illustrated. **YOU MUST HAVE BOTH OF THESE SWITCHES ON OR I WILL NOT OPERATE CORRECTLY.**
3. Insert tape.
4. Press **PLAY** Key.
5. Adjust Volume Knob.

## C. TO RECORD ON A CASSETTE:

1. Hearoid Power Switch: ON. **BOTH** Hearoid Motor Switches on back: ON.
2. Insert tape.
3. Press **REC** Key. While holding in **REC** Key, press **PLAY** Key.



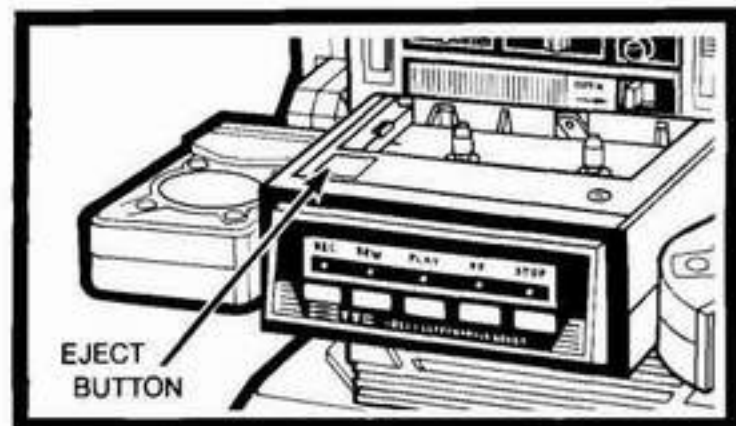
BUILT-IN MIC

4. I will record with the Built-in Mic on front of me.
5. When recording is completed, press **STOP**. Then **REWIND** tape.

**NOTE:** You **CANNOT** jump from **REC** to any other Tape Function except **STOP**. You must press **STOP** first, then another Tape Function.

## D. TO REMOVE A CASSETTE:

1. Cassette Deck should be off (no keys activated: no lights.)
2. Slide **OPEN** the lever to the right.
3. Pull the Cassette Deck like a drawer to you until the whole cassette is visible.

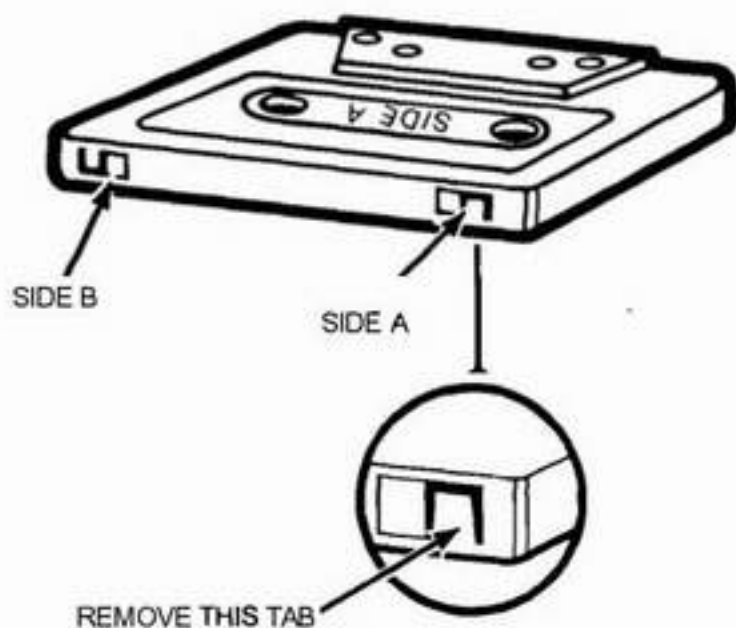


4. Push the **EJECT** button on the top of the cassette drawer.
5. Remove the cassette and push the Cassette Deck back into my housing.

(continued)

## BASIC CASSETTE OPERATION (CONT'D)

### E. SAVING A TAPE



If you want to keep recordings on the cassette, snap off the little tab on side A or B, depending on which side you wish to protect. For instance, if you wish to protect SIDE A, turn the cassette so SIDE A is facing up. Snap off the tab on the left side of the tape. SIDE A will be protected against accidental erasure.



If you want to record something else on the cassette, stick a piece of cellophane tape back where the tab was.

It is a copyright violation to use your recordings on your cassette other than for your own pleasure and personal use.

### F. CHECKPOINTS

If the Cassette Deck is not working properly, check the following points:

#### RECORD KEY WILL NOT WORK:

- Are you using a tape with the little tab snapped off? Take out the cassette tape to check the tab. If it has been snapped off, stick a piece of cellophane tape where the tab belongs.
- Are you pressing the REC and PLAY Keys at the same time on my Cassette Deck? Press the REC Key first. While holding it in, press the PLAY Key.  
NOTE: You only need to press the REC on the VCM.

#### YOU CANNOT PUT IN A CASSETTE:

- Are you trying to put it in backwards? Place it with the tape facing toward you.
- Is the PLAY Key pressed? First push STOP. Then put the cassette tape in.
- Check to see if the cassette is damaged.

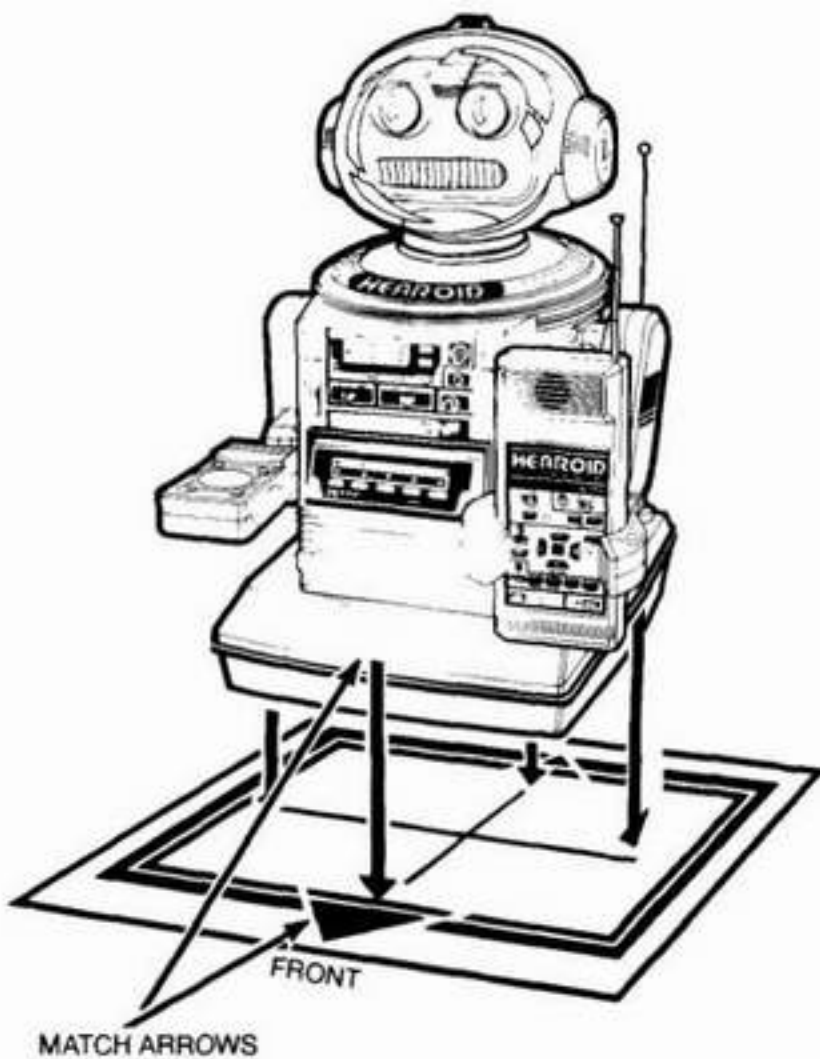
# VI. HOME BASE

Before you begin to move me around, you should get used to placing me on my Home Base. This is the place where you will begin all programming—you will learn how to program later in the Hearoid TEACH Mode, section XII.

1. Set my Home Base on the floor where you intend to store and keep me. It should be away from direct sunlight and extreme temperatures.
2. Secure Home Base to the floor with tape.
3. Center me on Home Base so that the arrows on my front and back line up exactly with the front and back arrows on Home Base. (see illustration)

4. When I am properly centered on Home Base, there will be equal distance between me and every edge of Home Base.
5. When playing back a programmed tape, always start me from this exact same position on Home Base to ensure my accuracy.

NOTE: If you do not secure Home Base with tape or adhesive, Home Base may gradually move from its proper place. This would prevent me from carrying out programs exactly as recorded.



# VII. MODES

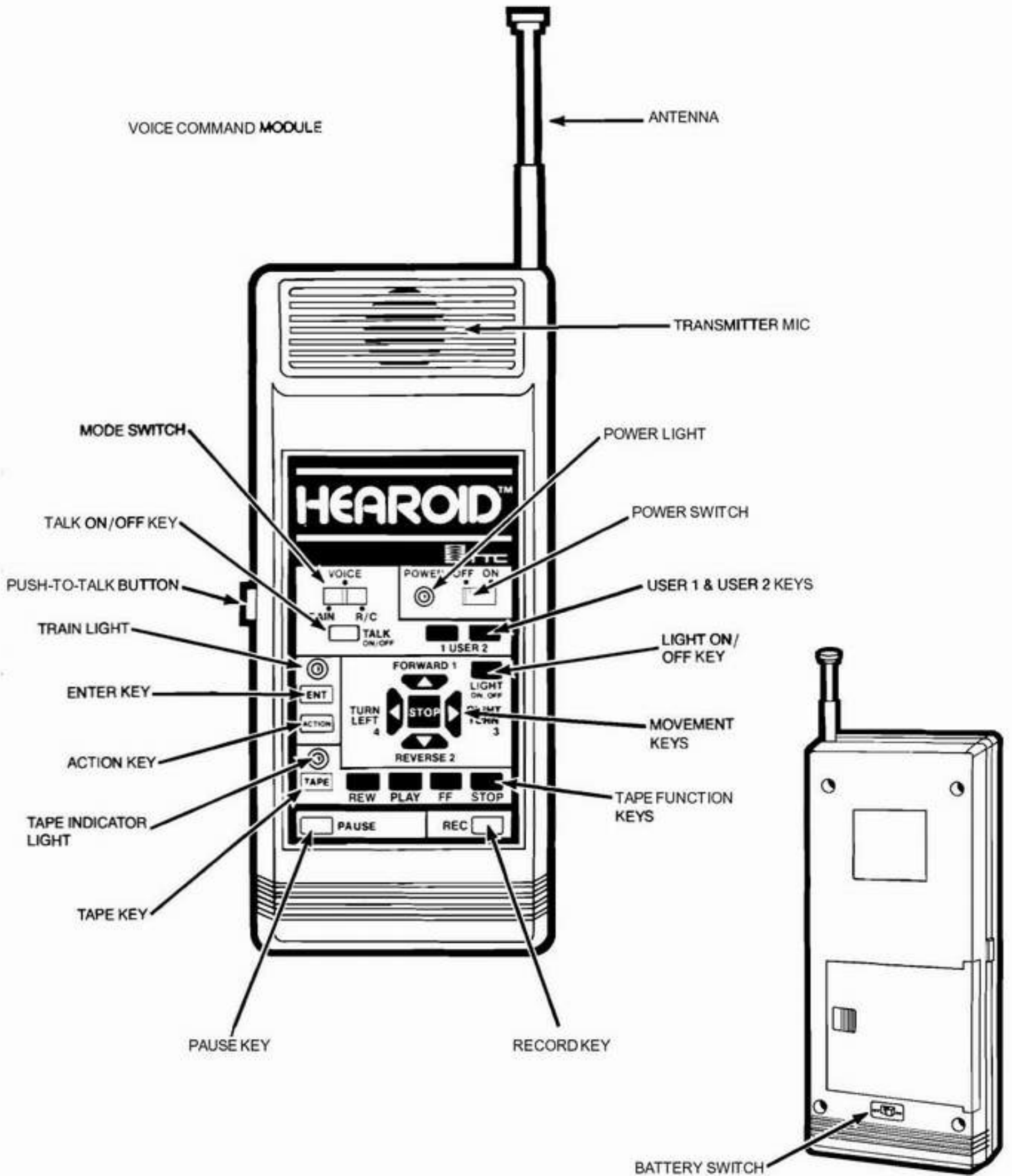


There are six different modes. Three of them—RECOGNITION, TEACH, and REPEAT—are located on the front of me.



The other three—TRAIN, R/C, and VOICE—are located on the Voice Command Module (VCM).

While you are charging my Battery Pack, let's discuss the modes on the Voice Command Module (VCM), beginning with the TRAIN mode.



# VIII. VOICE COMMAND MODULE—TRAIN MODE

This is the most difficult and longest section. You should relax and read the ENTIRE section. You can operate the VCM in the TRAIN Mode while my Battery Pack is charging.

This mode TRAINS me to recognize your voice.

YOU SHOULD READ THIS SECTION IN ITS ENTIRETY BEFORE FOLLOWING ANY OF THE INSTRUCTIONS.

YOU HAVE TWO OPTIONS:

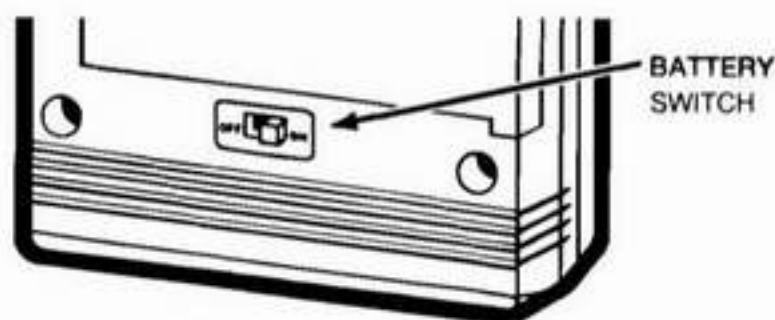
- 1) You may train me to recognize your voice only.
- 2) Or you may train me to recognize your voice (USER 1) and one other person's voice (USER 2).

NOTE: If trained for one User, I will perform with greater accuracy.

## A. TO TRAIN ME FOR YOUR VOICE ONLY:



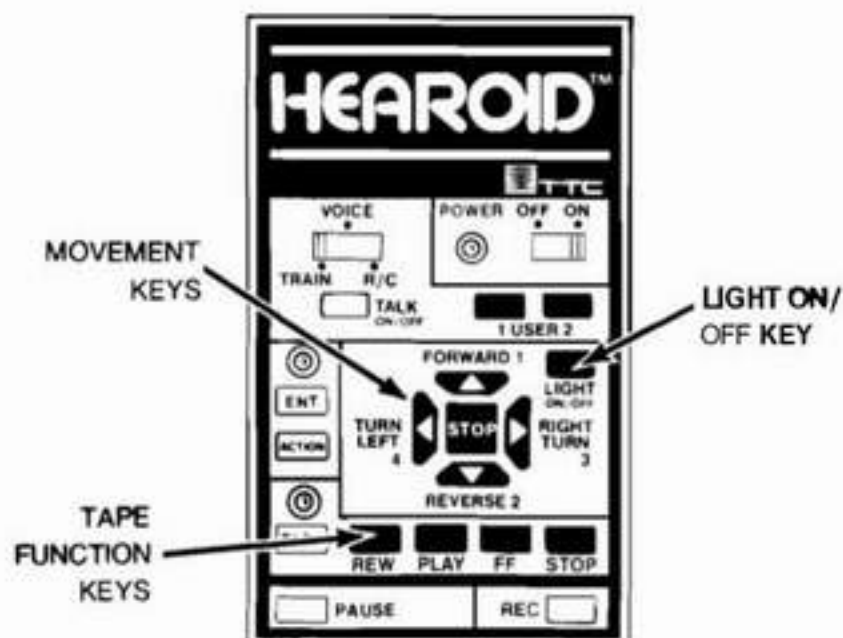
1. Slide the Mode Switch on the VCM to the TRAIN position.
2. Turn the Power Switch on the VCM to the ON position.



3. Make sure the Battery Switch on the back of the VCM is in the ON position.

**WARNING: IF THE BATTERY SWITCH IS TURNED OFF, ALL MEMORY IS ERASED! THIS SWITCH IS TO BE USED AS A QUICK ERASE IF YOU WANT TO CHANGE YOUR COMMAND WORDS. DO NOT TURN THIS SWITCH OFF UNLESS YOU WISH TO RETRAIN YOUR COMMAND WORDS. SEE PART C OF THIS SECTION FOR RETRAINING. (On Page 20)**

NOTE: Before turning OFF VCM Power Switch, always set the VCM Mode Switch to the R/C position. Batteries will drain faster if the Mode Switch is set to any other position than R/C.



4. You may train me to recognize TEN **different** commands:
  - a) There are FIVE Movement Keys: FORWARD, REVERSE, RIGHT TURN, TURN LEFT, & STOP.
  - b) There are FOUR Tape Function Keys: REW for Rewind, PLAY, FF for Fast Forward, & STOP.
  - c) There is ONE LIGHT ON/OFF Key. This Key turns my Headlight eyes on and off by repeating the same word. For example, saying "Headlights" will turn my eyes on if they are off, or it will turn them off if they are on.

NOTE: The PAUSE and REC (RECORD) Keys can NOT be trained for voice-recognition.

5. Training cannot be done if the TALK ON/OFF Key is ON. ALWAYS AS A HABIT, PRESS THE PAUSE KEY TO MAKE SURE THE TALK KEY IS OFF.



# VOICE COMMAND MODULE—TRAIN MODE (CONT'D)



6. Press the ENT Key. While holding in the ENT Key, press FORWARD 1 Key. Hold for at least one second, then release both Keys.

You are now ready to pick your command words. But first, you should know the following:

ALL COMMAND WORDS SHOULD:

- a) be between .2 and 0.96 seconds long.
- b) sound very different from one another.

For example, if you say "Right" to command me to **turn** right and "Light" to turn on my Headlight eyes, I may turn right when you say "Light."

HERE'S A LIST OF SUGGESTED COMMAND WORDS:

## MOVEMENT COMMANDS

FORWARD = straight ahead, advance, move ahead, forward

REVERSE = go back, backwards, back-up, reverse

RIGHT TURN = rotate right, right turn

TURN LEFT = spin left, turn left

STOP = hold it, halt, stay there

## TAPE FUNCTION COMMANDS

REW = scan back, review tape, rewind

PLAY = play tape, play, play back

FF = search forward, fast forward

STOP = pause tape, tape off, shut-off, stop tape

7. Pick out your command words and write them down so you'll remember them later. Make note of each command word's function. For illustration purposes let's choose the following command words:

FORWARD—"Advance"	REVERSE—"Go Back"
RIGHT TURN—"Right Turn"	TURN LEFT—"Turn Left"
STOP—"Rosebud"	REW—"Rewind"
PLAY—"Play Tape"	FF—"Fast Forward"
STOP—"Stop Tape"	LIGHT ON/OFF—"Headlights"

NOTE: You may retrain or change any of these command words at a later time. See Part C on Page 20.

8. Now that you've chosen your command words, it's time to enter each word into my memory. Let's start by pressing the FORWARD Movement Key. The Train Light will start blinking.

NOTE:

- a) If the Train Light (see illustration on Page 15) does not blink, make sure the TALK ON/OFF Key is off. Press the PAUSE Key to make sure the TALK Key is OFF. Press the ENT and FORWARD 1 Key. Then press the FORWARD Key again.
- b) If the Train Light goes off before you've spoken the command word, press the FORWARD Movement Key again.

9. Hold the VCM transmitter mic about three inches from your mouth.

NOTE: MAKE SURE TO SAY YOUR COMMAND WORD JUST AS YOU WILL REPEAT IT WHEN COMMANDING ME LATER ON. IN OTHER WORDS, IT IS NOT WHAT YOU SAY THAT IS IMPORTANT, BUT RATHER HOW YOU SAY IT. IF YOU DO NOT REPEAT YOUR COMMAND WORD WITH CONSISTENCY, I WILL NOT RECOGNIZE THE WORD.

10. Hold in the PUSH-TO-TALK button on the side of the VCM and speak your command word into the transmitter mic. For example, if you selected the word "Advance" for forward movement, say "Advance." If the Train Light does not go off, repeat "Advance" until the light goes off. Then, release the PUSH-TO-TALK button.
11. Now press the REVERSE Key. The Train Light will start blinking.
12. Hold in the PUSH-TO-TALK button and say "Go Back" into the transmitter mic. If the Train Light does not go off, repeat "Go Back" again until the light goes off, then release the PUSH-TO-TALK button.
13. Press the RIGHT TURN Key. The Train Light will start blinking.
14. Hold in the PUSH-TO-TALK button and say "Right Turn" into the transmitter mic. If the Train Light does not go off, repeat "Right Turn" again until the light goes off, then release the PUSH-TO-TALK button.
15. Press the TURN LEFT Key. The Train Light will start blinking.
16. Hold in the PUSH-TO-TALK button and say "Turn Left" until the Train Light goes off. Then release the PUSH-TO-TALK button.
17. Press the STOP Movement Key. The Train Light will start blinking.

REMEMBER: You may use any command word that lasts between .2 and 0.96 seconds. Perhaps you've decided to say "Rosebud" to make me STOP. Hold in the PUSH-TO-TALK button and say "Rosebud" until the Train Light goes off. Then release the PUSH-TO-TALK button.

(continued)

# VOICE COMMAND MODULE—TRAIN MODE (CONT'D)

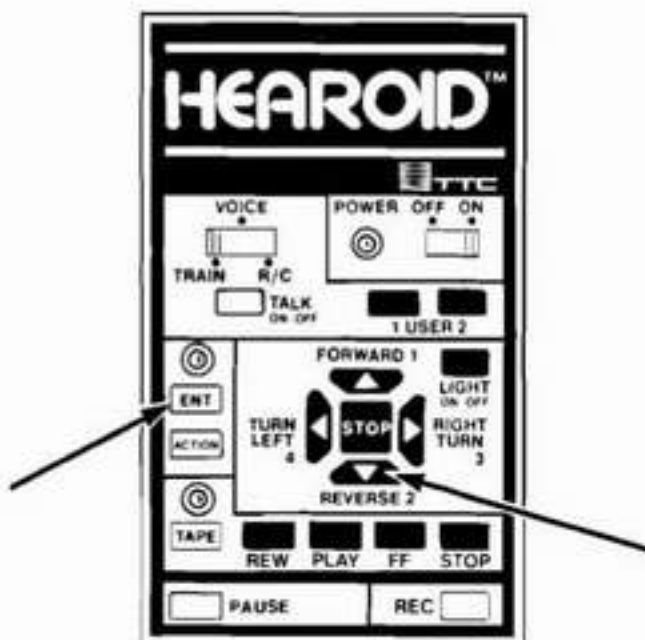
You have now entered all FIVE Movement commands. Let's proceed to the Tape Function Keys.

18. Press the REW Key. The Train Light will start blinking.
19. Hold in the PUSH-TO-TALK button and say "Rewind" until the Train Light goes off. Then release the PUSH-TO-TALK button.
20. Press the PLAY Key. The Train Light will start blinking.
21. Hold in the PUSH-TO-TALK button and say "Play Tape" until the Train Light goes off. Then release the PUSH-TO-TALK button.
22. Press the FF Key. The Train Light will start blinking.
23. Hold in the PUSH-TO-TALK button and say "Fast Forward" until the Train Light goes off. Then release the PUSH-TO-TALK button.
24. Press the STOP Key. The Train Light will start blinking.
25. Hold in the PUSH-TO-TALK button and say "Stop Tape" until the Train Light goes off. Then release the PUSH-TO-TALK button.

You have just entered all FOUR Tape Function commands. Let's proceed to the LIGHT ON/OFF Key.

26. Press the LIGHT ON/OFF Key. The Train Light will start blinking.
27. Hold in the PUSH-TO-TALK button and say "Headlights" until the Train Light goes off. Then release the PUSH-TO-TALK button.

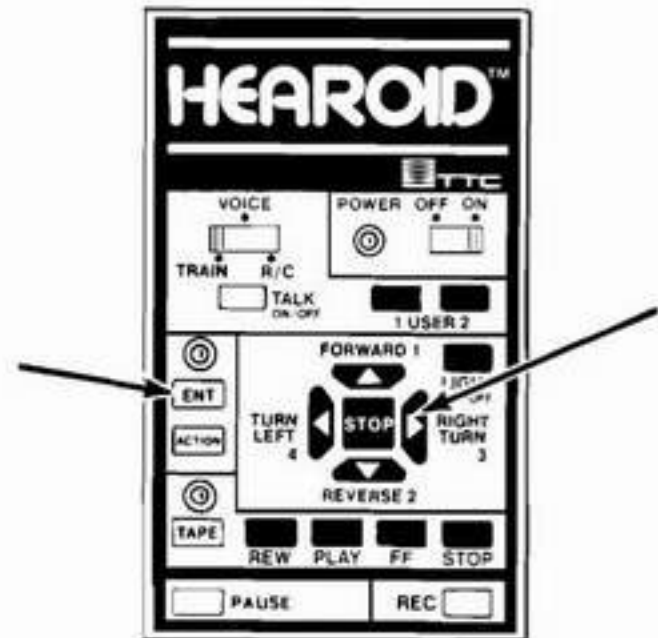
You have now entered all TEN command words into the FORWARD 1 Training Block. There are FOUR Training Blocks: FORWARD 1, REVERSE 2, RIGHT TURN 3, and TURN LEFT 4. You must train THE SAME ten command words into each Training Block. To do this, enter the same command words into the next Training Block, REVERSE 2.



## TRAINING BLOCK 2 (REVERSE 2)

1. Press the ENT Key. While holding in the ENT Key, press REVERSE 2 Key. This allows you to enter command words into Training Block 2. After at least one second, release both Keys.

2. Press the FORWARD Movement Key. The Train Light will start blinking. Check your list if you forget which command words you picked. Make sure you say the same command words as in Training Block 1.
3. Hold in the PUSH-TO-TALK button and say "Advance" until the Train Light goes off. Then release the PUSH-TO-TALK button.
4. Follow the same procedure as in Training Block 1 to enter all TEN command words:
  - a) Press one of the four remaining Movement Keys, the four Tape Function Keys, and the LIGHT ON/OFF Key.
  - b) Hold in the PUSH-TO-TALK button and say the appropriate command word until the Train Light goes off. Then release the PUSH-TO-TALK button.
  - c) Repeat a & b for each command word.

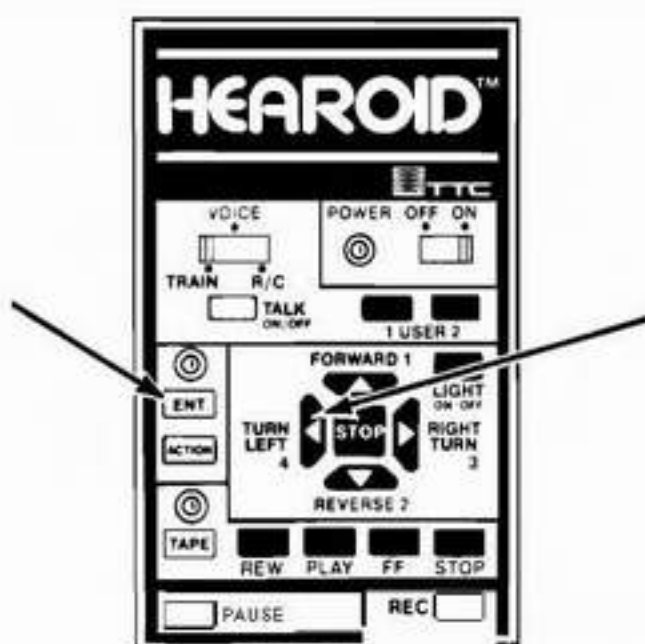


## TRAINING BLOCK 3 [RIGHT TURN 3]

1. Press the ENT Key. While holding in the ENT Key, press RIGHT TURN 3 Key. This allows you to enter command words into Training Block 3. After at least one second, release both keys.
 

REMEMBER: Enter the same command words you entered in Training Blocks 1 & 2.
2. Press the FORWARD Movement Key. The Train Light will start blinking.
3. Hold in the PUSH-TO-TALK button and say "Advance" until the Train Light goes off. Then release the PUSH-TO-TALK button.
4. Follow the same procedure as in the previous Training Blocks to enter all TEN command words:
  - a) Press one of the four remaining Movement Keys, the four Tape Function Keys, and the LIGHT ON/OFF Key.
  - b) Hold in the PUSH-TO-TALK button and say the appropriate command word until the Train Light goes off. Then release the PUSH-TO-TALK button.
  - c) Repeat a & b for each command word.

# VOICE COMMAND MODULE—TRAIN MODE (CONT'D)



## TRAINING BLOCK 4 (TURN LEFT 4)

1. Press the ENT Key. While holding in the ENT Key, press TURN LEFT 4 Key. This allows you to enter command words into Training Block 4. After at least one second, release both keys.  
REMEMBER: Enter the same command words you entered in the previous Training Blocks.
2. Press the FORWARD Movement Key. The Train Light will start blinking.
3. Hold in the PUSH-TO-TALK button and say "Advance" until the Train Light goes off. Then release the PUSH-TO-TALK button.
4. Follow the same procedure as in the previous Training Blocks to enter all TEN command words:
  - a) Press one of the four remaining Movement Keys, the four Tape Function Keys, and the LIGHT ON/OFF Key.
  - b) Hold in the PUSH-TO-TALK button and say the appropriate command word until the Train Light goes off. Then release the PUSH-TO-TALK button.
  - c) Repeat a & b for each command word.

Once you finish entering all TEN command words into the FOUR Training Blocks, the training for your voice will be completed.

## B. TO TRAIN ME FOR TWO USERS:

IN ORDER TO UNDERSTAND THIS SECTION, YOU MUST FIRST READ THROUGH THE PREVIOUS SECTION.

### USER 1:

1. Slide the Mode Switch on the VCM to the TRAIN position.
2. Turn the Power Switch on the VCM to the ON position.
3. Make sure the Battery Switch on the back of the VCM is in the ON position.

**WARNING: DO NOT TURN THE VCM BATTERY SWITCH OFF OR YOU WILL HAVE TO RETRAIN. KEEP THIS SWITCH ON OR IT WILL ERASE MY MEMORY.**

4. Press the PAUSE Key to make sure the TALK ON/OFF Key is OFF.
5. Press the ENT Key. While holding in the ENT Key, press FORWARD 1 Key. After at least one second, release both Keys.
6. Pick out your command words and write them down.  
NOTE: You may retrain or change any of your command words at a later time. See Part C on Page 20.
7. After choosing your command words, it's time to enter each word. Press the FORWARD Movement Key. The Train Light will start blinking.
8. Hold in the PUSH-TO-TALK button and say your command word for FORWARD (For example "Advance") until the Train Light goes off. **Remember:** keep the transmitter mic about three inches from your mouth. Then release the PUSH-TO-TALK button.
9. Follow this procedure to enter all TEN command words:
  - a) Press one of the four remaining Movement Keys, the four Tape Function Keys, and the LIGHT ON/OFF Key.
  - b) Hold in the PUSH-TO-TALK button and say the appropriate command word until the Train Light goes off. Then release the PUSH-TO-TALK button.
  - c) Repeat a & b for each command word.
10. Once you have entered all TEN command words, press the ENT Key. While holding in ENT Key, press REVERSE 2 Key. After at least one second, release both Keys. This allows you to enter command words into TRAINING BLOCK 2.
11. Press the FORWARD Movement Key. The Train Light will start blinking.
12. Hold in the PUSH-TO-TALK button and say the command word (in our example, "Advance") until the Train Light goes off. Then release the PUSH-TO-TALK button.
13. Follow this procedure to enter all TEN command words:
  - a) Press one of the four remaining Movement Keys, the four Tape Function Keys, and the LIGHT ON/OFF Key.
  - b) Hold in the PUSH-TO-TALK button and say the appropriate command word until the Train Light goes off. Then release the PUSH-TO-TALK button.
  - c) Repeat a & b for each command word.

This will complete the training for User 1.

(continued)

# VOICE COMMAND MODULE—TRAIN MODE [CONT'D]

## USER 2:

1. Press ENT Key. While holding in ENT Key, press RIGHT TURN 3. After at least one second, release both buttons.
2. Pick out your command words and write them down. Your words should be different from User 1. If they are the same words, I will respond with LESS accuracy. So you should pick out DIFFERENT command words from User 1. (Refer to Suggested Command Words on Page 17.)
3. After choosing your command words, it's time to enter each word. Press the FORWARD Movement Key. The Train Light will start blinking.
4. Hold in the PUSH-TO-TALK button and say your command word for FORWARD. Since User 1 said "Advance," User 2 should select a different word. For example, say "Forward" until the Train Light goes off. Then release the PUSH-TO-TALK button.
5. Follow this procedure to enter all TEN command words:
  - a) Press one of the four remaining Movement Keys, the four Tape Function Keys, and the LIGHT ON/OFF Key.
  - b) Hold in the PUSH-TO-TALK button and say the appropriate command word until the Train Light goes off. Then release the PUSH-TO-TALK button.
  - c) Repeat a & b for each command word.
6. Press the ENT Key. While holding in ENT Key, press the TURN LEFT 4 Key. After at least one second, release both Keys. This allows you to enter command words into TRAINING BLOCK 4.
7. Press the FORWARD Movement Key. The Train Light will start blinking.
8. Hold in the PUSH-TO-TALK button and say the same command word (in our example, "Forward") until the Train Light goes off. Then release the PUSH-TO-TALK button.
9. Follow this procedure to enter all TEN command words:
  - a) Press one of the four remaining Movement Keys, the four Tape Function Keys, and the LIGHT ON/OFF Key.
  - b) Hold in the PUSH-TO-TALK button and say the appropriate command word until the Train Light goes off. Then release the PUSH-TO-TALK button.
  - c) Repeat a & b for each command word.

This will complete training for two Users.

- a) User 1 command words are stored in Training Blocks 1 and 2 (FORWARD 1 & REVERSE 2).
- b) User 2 command words are stored in Training Blocks 3 and 4 (RIGHT TURN 3 & TURN LEFT 4).

## C. RETRAINING COMMAND WORDS:

You may retrain any single command word or all of them by following the same procedure in Parts A & B.

1. Press PAUSE Key to make sure TALK ON/OFF Key is OFF.
2. Press the ENT Key and one of the Training Block Keys.
3. Press the Movement or Tape Function Key you wish to retrain. The Train Light will start blinking.
4. Hold in the PUSH-TO-TALK button and say the new command word until the Train Light goes off.

REMEMBER: If you are the only User, you should retrain all FOUR Training Blocks.

If there are two Users, retrain Blocks 1 & 2 for User 1 and Blocks 3 & 4 for User 2.

**SPECIAL NOTE:** If you wish to retrain ALL command words, turn the Power Switch OFF, then turn the Battery Switch OFF, and ON again.

This will erase my memory COMPLETELY.

## SUMMARY

1. VCM Mode Switch: TRAIN.
2. VCM Power Switch: ON.
3. VCM Battery Switch: ON. KEEP THIS SWITCH ON AT ALL TIMES, UNLESS YOU WISH TO RETRAIN.
4. TALK Key: OFF. Press PAUSE to make sure.
5. Press ENT Key. While holding in ENT Key, press FORWARD 1 Key. Release after at least one second.
6. Pick your command words and write them down.
7. Press a Movement Key, Tape Function Key, or the LIGHT ON/OFF Key. Train Light will start blinking.
8. Hold in the PUSH-TO-TALK button and repeat your command word into the transmitter mic until the Train Light goes off.
9. Enter all TEN command words by:
  - a) Pressing desired Key.
  - b) Holding in the PUSH-TO-TALK button and repeating the command word until the Train Light goes off.
10. After entering all TEN command words into FORWARD 1 Training Block, proceed to REVERSE 2 Training Block by repeating the same steps. **For one User:** Enter all TEN command words into all FOUR Training Blocks.

## FOR TWO USERS

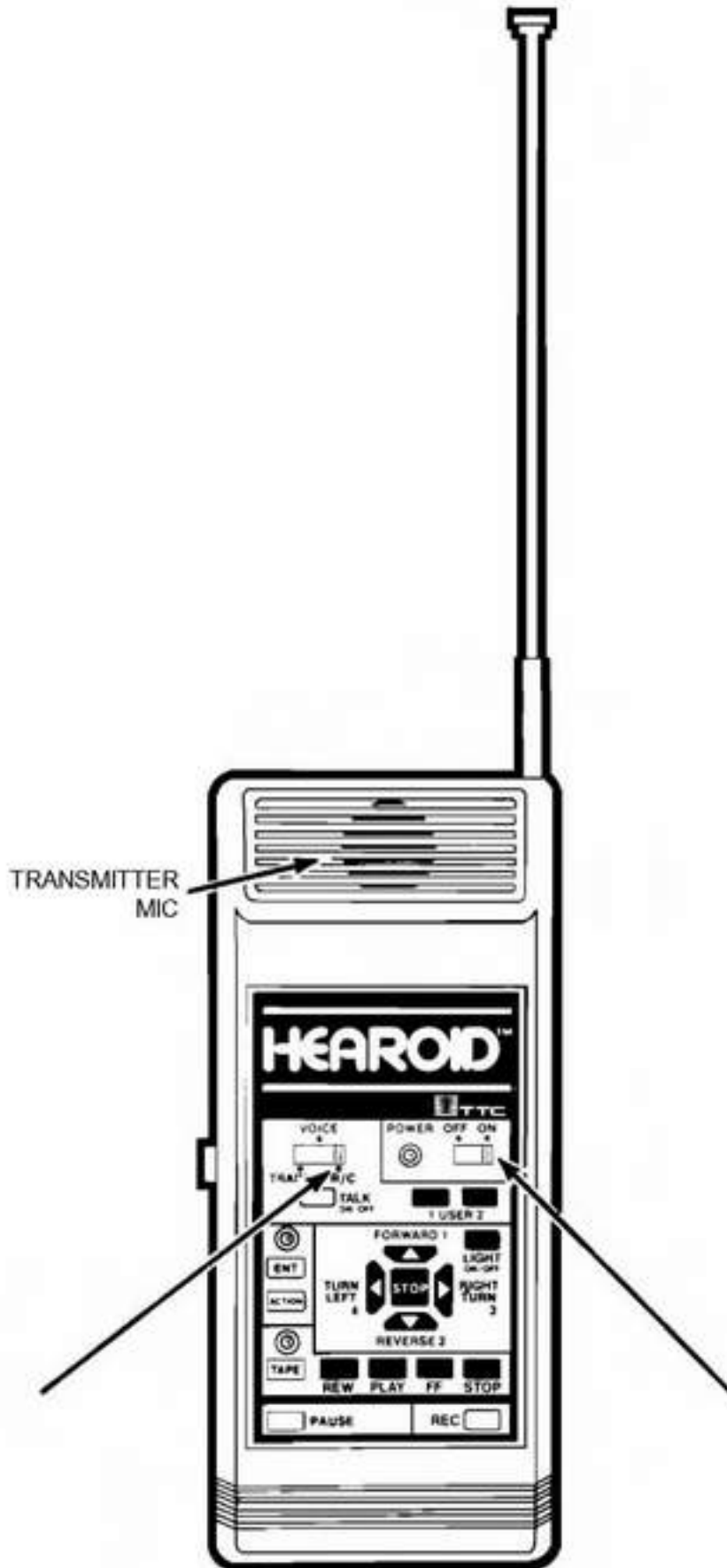
- a) User 1: Enter all TEN command words into FORWARD 1 and REVERSE 2 Training Blocks using the above procedure.
- b) User 2: Enter all TEN command words into RIGHT TURN 3 and TURN LEFT 4 Training Blocks using the above procedure.

**NOTE:** IF YOU REMOVE OR REPLACE THE BATTERIES IN THE VCM, YOU MUST RETRAIN YOUR COMMAND WORDS.

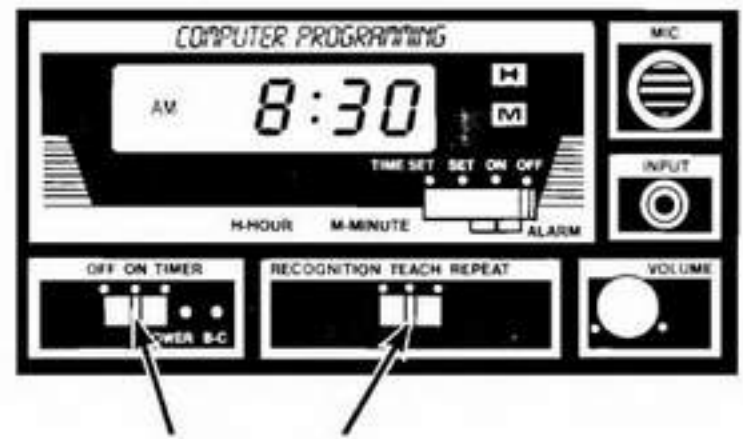
**REMEMBER:** Before turning OFF the VCM, set the Mode Switch to R/C to save the batteries from draining.

# IX. VOICE COMMAND MODULE—R/C MODE

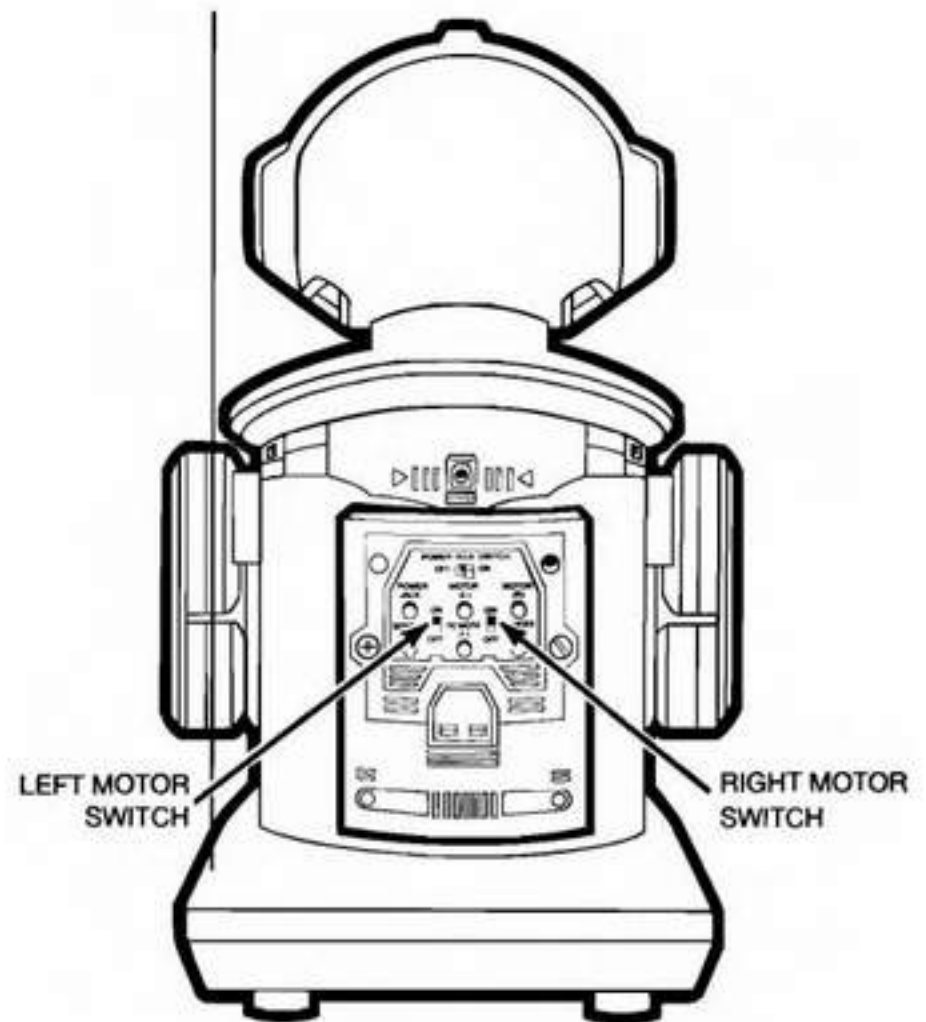
NOTE: BEFORE FOLLOWING THESE INSTRUCTIONS, MAKE SURE THE BATTERY HAS BEEN FULLY CHARGED (12-16 HOURS). You may move me or activate my Cassette Deck by remote control without using your voice.



1. Slide the Mode Switch on the VCM to the R/C position.
2. Extend the antenna on the VCM. DO NOT AIM ANTENNA DIRECTLY AT ME. KEEP ANTENNA AIMED STRAIGHT UP SO I'LL RECEIVE CLEAR SIGNALS.
3. Turn the Power Switch on the VCM to the ON position.
4. Make sure the Battery Switch on the VCM back is in the ON position.



5. MAKE SURE MY HEAROID MODE SWITCH (SEE ILLUSTRATION ABOVE) IS SET TO THE RECOGNITION POSITION. I WILL NOT RESPOND IN THE REPEAT MODE.
6. Turn my Hearoid Power Switch to the ON position. Be careful not to push the Power Switch to the TIMER position.



7. Make sure my Hearoid Left and Right Motor Switches are in the ON position as illustrated.  
NOTE: BOTH OF THESE SWITCHES MUST BE ON OR I WILL NOT MOVE CORRECTLY.
8. There are thirteen keys to which I will respond in the R/C Mode.
  - a) FIVE Movement Keys: FORWARD, REVERSE, RIGHT TURN, TURN LEFT, and STOP.

(continued)

# VOICE COMMAND MODULE—R/C MODE (CONT'D)

- b) FOUR Tape Function Keys: REW (Rewind), PLAY, FF (Fast Forward), and STOP.
- c) FOUR Special Keys: LIGHT ON/OFF, TALK ON/OFF, PAUSE, and REC (Record).
- 9. Press the desired Key on the VCM. I will respond accordingly. Try all 13 Keys. If you want to use my Cassette Deck, make sure you insert a cassette.  
NOTE: When REC function is activated you must press STOP before jumping to a different function.

PRESSING THE KEY ACTIVATES THE DESIRED FUNCTION. YOU DO NOT HAVE TO HOLD THE KEY DOWN.

## SPECIAL KEYS

The LIGHT ON/OFF Key:

This Key turns on and off my Headlight eyes.

- a) Pressing the LIGHT ON/OFF Key will turn my Headlights on.
- b) Pressing it again will turn my Headlights off, and so forth.  
NOTE: The PAUSE Key will also turn OFF my Headlight eyes.

The TALK ON/OFF Key:

This Key activates my onboard speaker so you can project your voice.

- a) Pressing the TALK ON/OFF Key will turn the speaker on if it is off.
- b) Hold in the PUSH-TO-TALK button and speak into the transmitter mic on the VCM. (See illustration on Page 21.)
- c) Adjust the sound level by turning the Volume Knob on the front of me.
- d) Pressing the TALK ON/OFF Key will turn the speaker off if it is on.  
NOTE: The PAUSE Key will also deactivate the TALK ON/OFF Key.

The PAUSE Key:

This Key will stop ALL movement and tape functions immediately. Simply press the PAUSE Key. Use it as an emergency STOP button.

The REC Key:

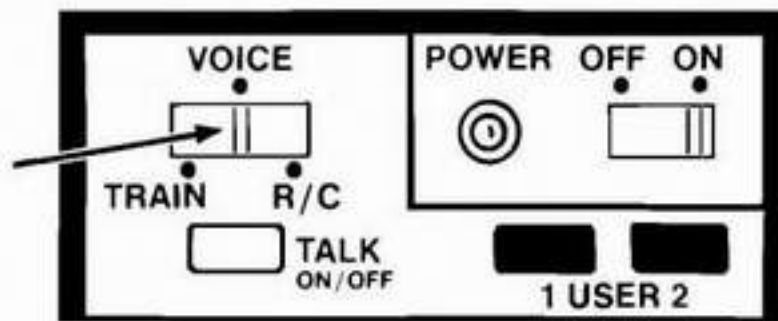
This Key starts the record function on my Cassette Deck. Simply press the REC Key and the Cassette Deck will begin recording.

REMEMBER: DO NOT AIM VCM ANTENNA DIRECTLY AT ME (HEAROID). KEEP ANTENNA POSITIONED STRAIGHT UP SO I'LL RECEIVE CLEAR SIGNALS.

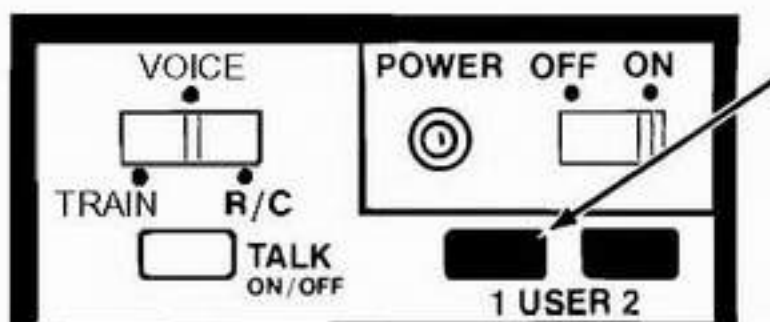
# X. VOICE COMMAND MODULE—VOICE MODE

Before operating in the Voice Mode, you must first program your voice in the TRAIN Mode (See Page 16.) The VOICE Mode will allow you to transmit your vocal commands. I will, then, follow your orders.

REMEMBER: YOU MUST REPEAT YOUR COMMAND WORDS EXACTLY AS YOU SPOKE THEM IN THE TRAIN MODE. SAY YOUR COMMAND WORDS WITH THE SAME CONSISTENCY USED DURING TRAINING.



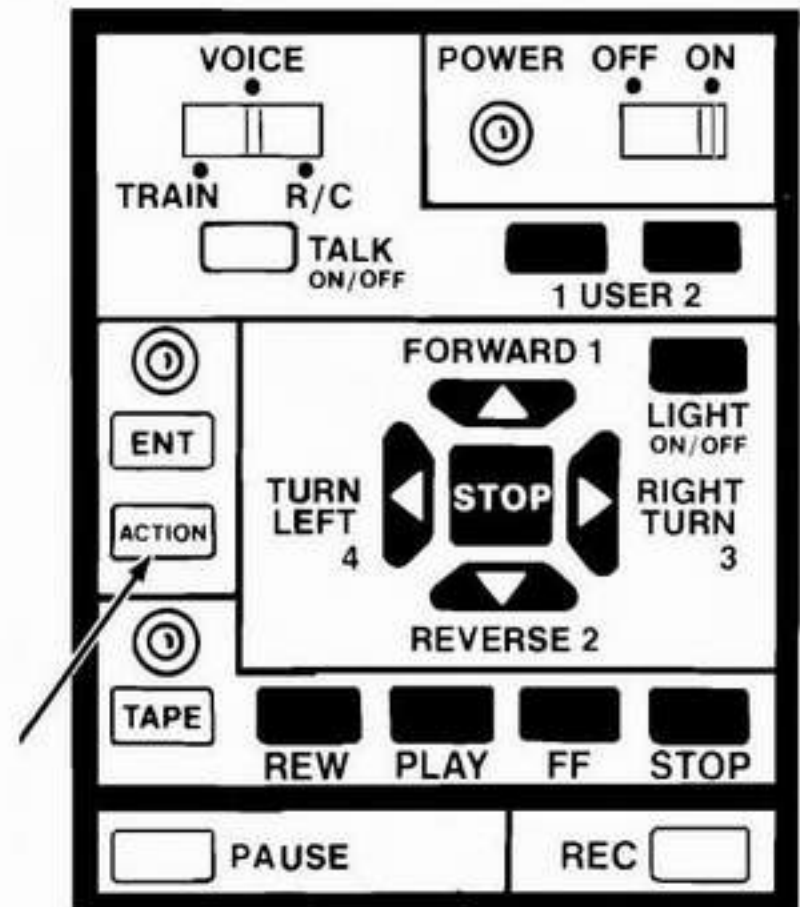
- A. TO VOCALLY CONTROL MOVEMENTS AND HEADLIGHTS:
- Slide the Mode Switch on the VCM to the VOICE position.
  - Extend the antenna on the VCM.
  - Turn the Power Switch on the VCM to the ON position.
  - Make sure the Battery Switch on the VCM back is in the ON position.
  - MAKE SURE MY HEAROID MODE SWITCH IS SET TO RECOGNITION. I WILL NOT RESPOND IN THE REPEAT MODE.
  - Turn my Hearoid Power Switch to the ON position. ALSO, MAKE SURE BOTH MY LEFT AND RIGHT MOTOR SWITCHES(ON MY BACK ACCESSORY INTERFACE PANEL) ARE ON.
  - THE VOICE MODE **WILL NOT WORK** IF THE TALK ON/OFF KEY IS ON. TO MAKE SURE THE TALK KEY IS OFF, PRESS THE PAUSE KEY. (PRESSING THE PAUSE KEY DEACTIVATES ALL FUNCTIONS.)



- If you are the only USER (See section on TRAIN Mode), you need not identify the User's voice. Proceed to step 9.

If there are TWO USERS (See section on TRAIN Mode), you must now identify the User's voice:

- If you trained your voice in FORWARD 1 and REVERSE 2 Training Blocks, press USER 1, then proceed to step 9.
- If you trained your voice in RIGHT TURN 3 and TURN LEFT 4 Training Blocks, press USER 2, then proceed to step 9.



- Press the ACTION Key on the VCM.
- Decide which command you want me to follow. Let's say you want me to move forward.
- Hold in the PUSH-TO-TALK button on the side of the VCM.
- Say the exact same command word you programmed in the TRAIN mode into the VCM transmitter mic. For example, if you trained the word "Advance" to move me forward, say "Advance." Say the command word just as you said it when you trained me. I will follow and obey your command.

NOTE: You may turn on-and-off my Headlight eyes and make me move at the same time while using your voice.

(continued)

# VOICE COMMAND MODULE—VOICE MODE (CONT'D)

## B. TO VOCALLY CONTROL MY CASSETTE DECK:

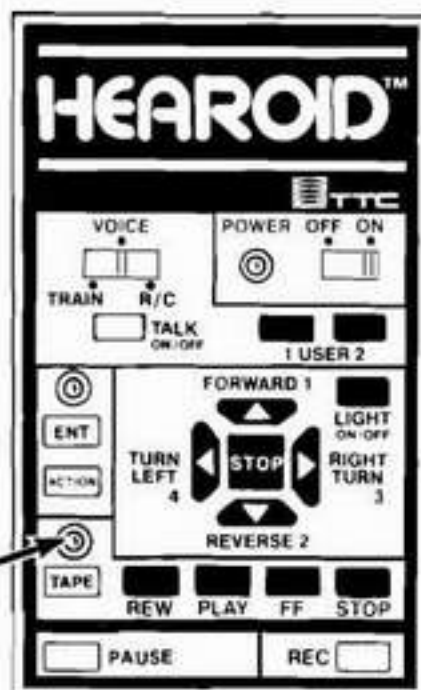
1. Mode Switch on VCM: VOICE.
2. Antenna on VCM: Extended.
3. Power Switch on VCM: ON.
4. Battery Switch on VCM back: ON.
5. Mode Switch on me: RECOGNITION.
6. Power Switch on me: ON. BOTH Motor Switches on back: ON.

NOTE: MAKE SURE THE TALK ON/OFF KEY IS OFF BY PRESSING THE PAUSE KEY.

7. If you are the only USER (See section on TRAIN Mode), you need not identify the User's voice. Proceed to step 8.

If there are TWO USERS (See section on TRAIN Mode), you must now identify the User's voice:

- a) If you trained your voice in FORWARD 1 and REVERSE 2 Training Blocks, press USER 1, then proceed to step 8.
- b) If you trained your voice in RIGHT TURN 3 and TURN LEFT 4 Training Blocks, press USER 2, then proceed to step 8.



8. Press the TAPE Key on the VCM. The Tape Light Indicator will come on.

9. Insert a cassette into the Cassette Deck.
10. Decide which tape function you wish to activate. For example, let's play the tape.
11. Hold in the PUSH-TO-TALK button on the VCM.
12. Say the exact same command word you programmed in the TRAIN mode into the VCM transmitter mic. For example, if you trained "Play" to play the tape, say the word just as you said it when you trained me. The Cassette Deck will follow your instructions.

NOTE: THE RECORD AND PAUSE FEATURES CANNOT BE VOICE-ACTIVATED.

YOU MUST PRESS THE REC KEY ON THE VCM TO RECORD. YOU CAN ALSO PRESS THE REC AND PLAY KEYS ON THE CASSETTE DECK. (SEE PAGE 10 IN BASIC CASSETTE OPERATION.)

THE PAUSE FEATURE CAN ONLY BE OPERATED ON THE VCM BY PRESSING THE PAUSE KEY. IT WILL WORK IN ALL MODES, EXCEPT REPEAT.

## C. TO SWITCH BETWEEN MOVEMENT COMMANDS AND TAPE FUNCTION COMMANDS:

1. Press the ACTION Key on the VCM for the FIVE Movement Keys plus the LIGHT ON/OFF Key.
2. Press the TAPE Key on the VCM for the FOUR Tape Function Keys.
3. Both the REC and PAUSE features can be activated by pressing the REC and PAUSE Keys. It does not matter whether the ACTION or TAPE Keys are pressed.

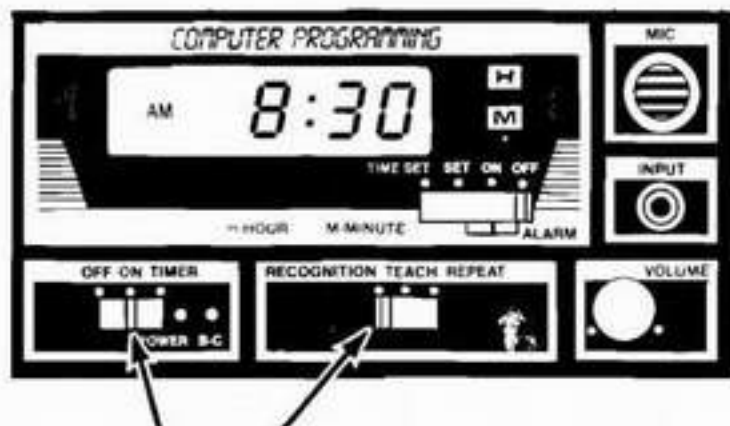
NOTE: IF THE BATTERIES IN THE VCM ARE REMOVED OR REPLACED, YOU MUST RETRAIN YOUR COMMAND WORDS.

REMEMBER: Before turning OFF the VCM, set the Mode Switch to R/C to save the batteries from draining.



# XI. HEAROID—RECOGNITION MODE

This mode allows you to play my Cassette Deck.



DO NOT USE **THIS** MODE TO PLAYBACK PROGRAMMED TAPES. YOU WILL LEARN HOW TO PROGRAM IN THE TEACH MODE, SECTION XII.

## A. TO PLAYBACK TAPES:

1. Hearoid Mode Switch: RECOGNITION.
2. Hearoid Power Switch: ON. BOTH Motor Switches on back: ON.
3. Insert a cassette into the cassette drawer.
4. At this point, you have the option of pressing the PLAY Key directly on Hearoid or using the VCM.  
NOTE: If you use the VCM to control the Cassette Deck:
  - a) Make sure the VCM Power and Battery Switches are ON.
  - b) Set the VCM Mode Switch set to R/C.
  - c) Press the PLAY Key.
5. Adjust the Volume Knob.

## B. TO PLAYBACK A TAPE AT A PRE-SET TIME:

You may also use the RECOGNITION Mode to playback pre-recorded tapes of music or your voice at a pre-set time.

This mode acts as an alarm. Instead of hearing a beeper, my Cassette Deck will start up at the pre-set time.

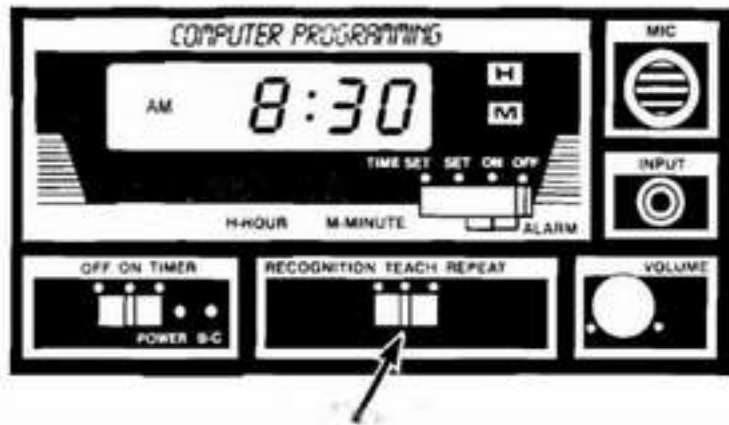
Playback a tape of music for a relaxing way to greet the morning. Or playback your recorded message to remind you of things you have to do for the day.

YOU MUST FOLLOW THE PROPER SEQUENCE:

1. Start by making sure my Hearoid Power Switch is in the OFF position. If it is not, slide it to OFF.
2. Insert a cassette into my Cassette Deck. (See NOTE on Page 26. Remember to wind past the leader tape.)  
NOTE: You must adjust the Volume Knob so you can hear what's on the tape. If the level is too low, you will not be able to hear the tape.
3. Once you have inserted the cassette, now is the time to move my Hearoid Power Switch to the ON position.
4. Set the alarm on my Digital Clock to the desired time. (See Section IV)
5. Slide my Hearoid Mode Switch to the RECOGNITION position.
6. Now slide my Hearoid Power Switch to the TIMER position. Make sure BOTH Motor Switches on my back are ON.
7. At the pre-set time, the cassette will playback.
8. The Cassette Deck has an automatic end-of-tape shut-off. When the tape reaches the end, the tape will turn off. To turn off the cassette before the tape runs out, simply turn my Hearoid Power Switch to the OFF position.

# XII. HEAROID—TEACH MODE

This mode allows you to program your voice, movement, and lights onto a cassette tape. Once stored, you can play the tape back at a later time. After some practice, you will be able to create an entire library of programmed tapes.



There are two ways to program a tape:

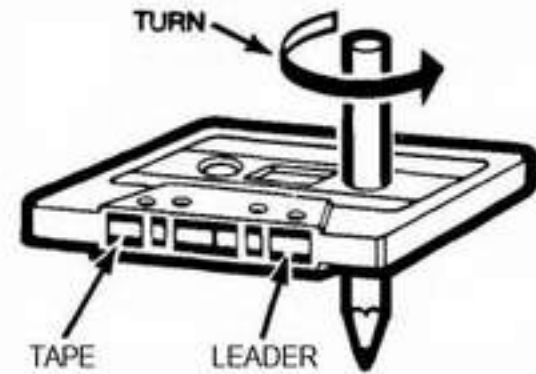
- Using the VCM in the R/C Mode.
- Using the VCM in the VOICE Mode.

NOTE: It is preferable to program in the R/C Mode to ensure accuracy.

## A. TO PROGRAM A TAPE USING R/C MODE ON THE VCM:

- Make note of my location by using the Home Base. REMEMBER: Home Base ensures my accuracy. If you want me to move exactly as programmed, use Home Base as the starting position for all programs.
- Slide the VCM Mode Switch to the R/C position.
- Extend the antenna on the VCM.
- Turn the VCM Power Switch to the ON position.
- Make sure the Battery Switch on VCM back is in the ON position.
- Slide my Hearoid Mode Switch to the TEACH position.
- Turn my Hearoid Power Switch to the ON position. Make sure BOTH Motor Switches on my back are ON.
- Insert a cassette tape into my Cassette Deck.

NOTE: IF YOU WANT TO HAVE YOUR PROGRAMS BEGIN EXACTLY ON CUE, READ THE FOLLOWING. OTHERWISE SKIP TO STEP 9.



NOTE: Every cassette tape has what is called a "leader" at both ends. This is non-magnetic tape which you can NOT record on. It looks different from the recording tape. Leader tape can be clear or a color such as white, yellow, or red. Thus, your recordings will not actually start recording or playing back until the cassette winds past the leader and gets to the magnetic tape.

If you want me to play a tape on cue (to ensure you are past the leader):

- Rewind the cassette completely.
  - Remove the cassette from the Cassette Deck.
  - Insert a pencil or similar object (as illustrated) and turn the leader until the tape appears. Position the leader / tape as pictured.
  - Place the cassette back into the Cassette Deck. Now the magnetic tape will begin exactly on cue when you start the Cassette Deck.
- Press the PAUSE Key to make sure the TALK ON/OFF Key is OFF. Remember: You cannot control movement or tape functions when this key is ON.
  - Press the VCM REC Key. The record function on my Cassette Deck will be activated.
  - Press the Movement Keys or the LIGHT ON/OFF Key. Your commands will be recorded on tape as I follow them. This will allow you to chart out my movements precisely.

## HEAROID—TEACH MODE [CONT'D]

12. If you wish to record your voice, press the TALK ON/OFF Key and speak into the VCM transmitter mic. Press the TALK ON/OFF Key again to shut-off the mic.

NOTE: You must make sure the TALK Key is OFF to continue programming.

13. When you have completed programming, press the PAUSE Key to stop all movement and to deactivate the REC function.
14. Rewind the tape. You will learn how to play back your movement program in the next section (Hearoid—Repeat Mode).

### B. TO PROGRAM A TAPE USING THE VOICE MODE ON THE VCM:

NOTE: IT IS STRONGLY RECOMMENDED THAT YOU PROGRAM WHILE IN THE R/C MODE ON THE VCM. PROGRAMMED TAPES WILL BE MORE ACCURATE WHEN RECORDED IN THE R/C MODE. YOU MAY USE THE VOICE MODE AS A SPECIAL FEATURE, BUT DO MOST OF YOUR PROGRAMMING IN THE R/C MODE.

1. Make note of my location by using the Home Base.
2. Slide the VCM Mode Switch to the VOICE position.
3. Extend the antenna on the VCM.
4. Turn the VCM Power Switch to the ON position.
5. Make sure the Battery Switch on the VCM back is in the ON position.
6. Slide my Hearoid Mode Switch to the TEACH position.

7. Turn my Hearoid Power Switch to the ON position. Make sure BOTH Motor Switches on my back are ON.
8. Insert a cassette tape into my Cassette Deck. (See NOTE after step 8 on page 26 for cueing a tape.)
9. Make sure the TALK ON/OFF Key is OFF by pressing the PAUSE Key.
10. Press the VCM REC Key. The record function on my Cassette Deck will be activated.
11. Press the VCM ACTION Key.
12. Hold in the PUSH-TO-TALK button on the VCM and speak the same command words you programmed in the TRAIN Mode into the transmitter mic. The movements will be recorded on tape.
13. If you wish to record your voice to later playback through my onboard speaker, press the TALK ON/OFF Key. Hold in the PUSH-TO-TALK button and record your voice onto tape. To deactivate my onboard speaker, press the TALK ON/OFF Key again. YOU WILL NOT BE ABLE TO CONTROL MY MOVEMENTS WHILE THE TALK ON/OFF KEY IS ON.
14. When you have completed programming, press the PAUSE Key to stop all movement and deactivate the REC function.
15. Rewind the tape. You will learn how to play back your movement program in the next section (Hearoid—Repeat Mode).

REMEMBER: Before turning OFF the VCM, set the Mode Switch to R/C to save the batteries from draining.

# XXI. COMMON QUESTIONS

---

## QUESTION

One night, we were watching television and Hearoid was sitting in the corner minding his own business. A plane flew over and Hearoid took off, out of control. Why did he do that?

## ANSWER

Hearoid receives radio frequency signals. While you were watching television, he probably woke up when the plane flew over. Hearoid may seemingly take off on his own. But he is actually responding to a radio signal in the area. Planes, garagedoor openers, television remote controls, and other devices which send radio signals, may cause Hearoid to act as if he has a mind of his own.

---

## QUESTION

Hearoid won't respond when I aim the VCM at him. Why doesn't he move when I tell him to?

## ANSWER

You are probably aiming the VCM antenna directly at Hearoid. In order for the signal to be received clearly, keep the antenna aimed and positioned straight up.

---

## QUESTION

I noticed there's a TIMER setting on Hearoid's Power Switch. What does the TIMER do?

## ANSWER

The TIMER setting will play back tapes at a pre-set time. See section IV (Time of Day), section XI (Hearoid—Recognition Mode), and section XIII (Hearoid—Repeat Mode).

---

## QUESTION

I can't get Hearoid to work after turning the Power Switch to TIMER. What's the scoop?

## ANSWER

You must set the Power Switch back to ON. REMEMBER: Be careful when turning the Power Switch to ON so you don't mistakenly go to the TIMER setting.

---

## QUESTION

What's the purpose of the Battery Switch on the back of the VCM?

## ANSWER

The Battery Switch is a quick way to erase the memory of all voice commands you programmed into the VCM. You should keep it turned ON to save your commands. If you turn the switch OFF, you will lose all memory. Also, to help preserve the life of the VCM batteries, you should store the VCM with the Mode Switch in the R/C position.

## QUESTION

Is the Battery Charger Light supposed to be on when I'm using Hearoid?

---

## ANSWER

No. The Battery Charger Light will glow when the Battery Pack needs recharging. REMEMBER: When you first turn on Hearoid, the Battery Charger Light will glow for about 5 to 10 seconds, then turn off. This is normal. However, if it continues to glow for over 30 seconds, then you should recharge the Battery Pack immediately.

## QUESTION

Hearoid works when I press the keys on the VCM, but he won't do anything when I talk into the mic. What am I doing wrong?

## ANSWER

You're probably not changing the VCM Mode Switch to the VOICE position. Hearoid WILL NOT work by voice commands while in the R/C position. As a rule, you should check carefully which modes you're operating in. Most of your problems can be corrected by making sure you are in the proper mode setting!

---

## QUESTION

I lost Hearoid's Home Base. Can I still operate him?

## ANSWER

Yes. Home Base is simply an indicator—a starting point. You may use any other stationary object as a Home Base: the same corner of a room, a fixed piece of cardboard, etc. The point is to start Hearoid from the same place when you're playing back programmed tapes.

---

## QUESTION

Monday, I programmed a tape, set the timer, and set the Mode Switch to RECOGNITION. Yesterday at 1 33pm, Hearoid played back my programmed tape, but he didn't follow my commands. He just sat there with the tape playing. Should I send him in for service?

## ANSWER

No. There is nothing wrong with your friend, Hearoid. In order for Hearoid to follow your programmed (taped) commands, you must set his Mode Switch to the REPEAT position. The RECOGNITION Mode is just to play back music or messages (not movement commands) at a pre-set time.

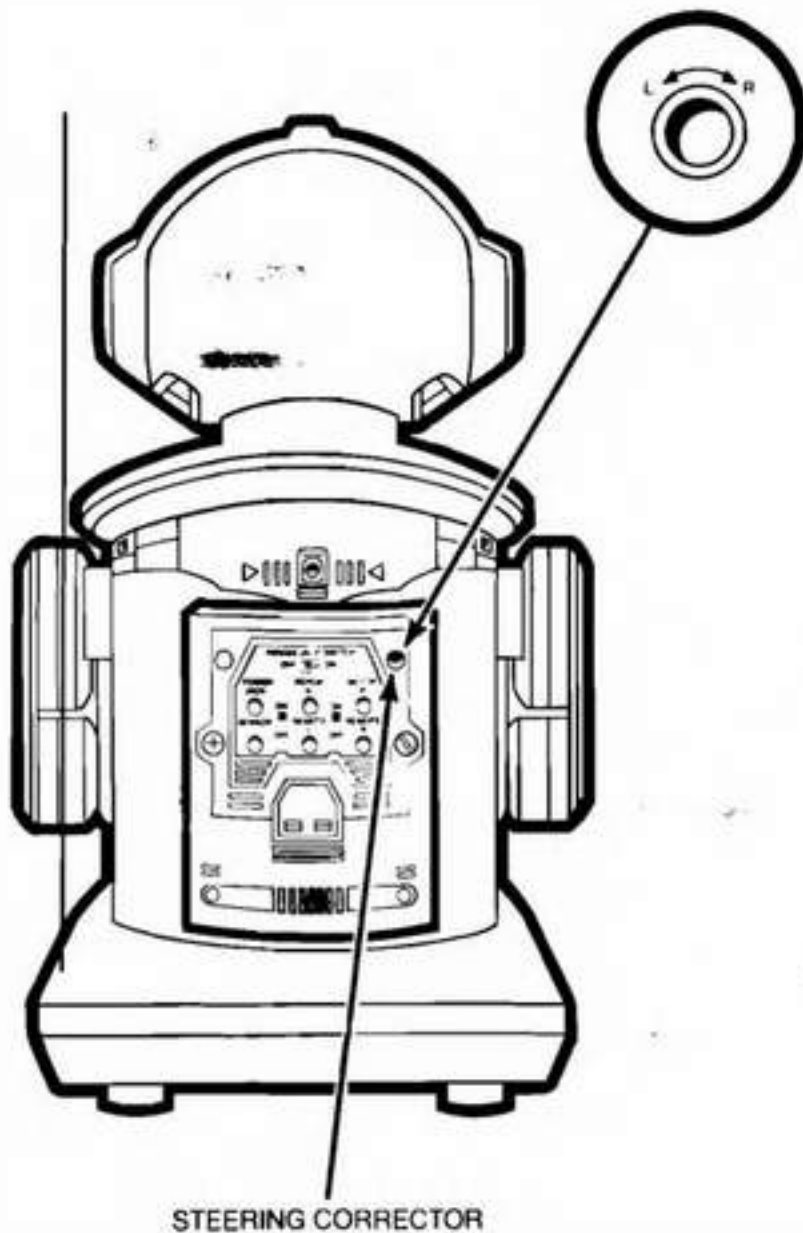
# XIV. STEERING ADJUSTMENT

I should travel in a straight path when the VCM FORWARD Movement Key is pressed. If I veer off in a different direction, then my steering needs adjustment.

ADJUST ON A HARD, CLEAN SURFACE.

TO CORRECT MY DIRECTION:

1. Adjust my steering only when I am NOT MOVING.
2. Insert a screwdriver (included in contents) into the Steering Corrector. (see illustration)



3. Turn screwdriver slightly in the direction needed to correct my path. If I veer off to the left, turn the Steering Corrector a little to the right. If I veer off to the right, turn the Steering Corrector to the left.
4. Test my path after each adjustment.

Once this initial adjustment is made, I should not require further adjusting.

NOTE: SINCE YOU CAN PROGRAM MOVEMENTS ONTO TAPE, ANY STEERING ADJUSTMENTS MADE AFTER YOU PROGRAM YOUR TAPES WILL REQUIRE THAT YOU REPROGRAM YOUR TAPES. OTHERWISE, I WILL NOT FOLLOW THE EXACT MOVEMENTS ON THE CASSETTES SINCE THE RECORDINGS WERE MADE WITH A DIFFERENT SETTING ON THE STEERING ADJUSTMENT.

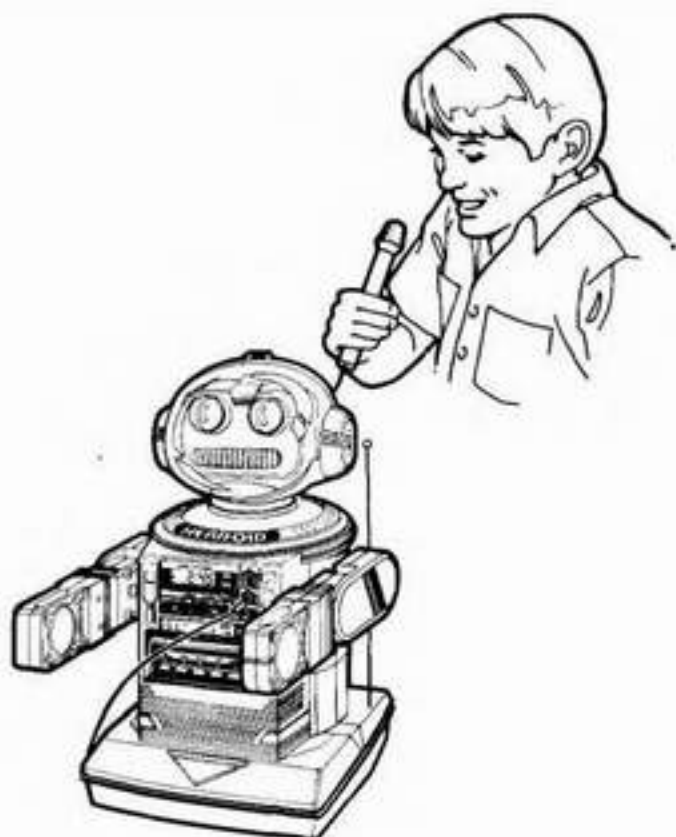
WHENEVER YOU ADJUST MY STEERING, YOU WILL HAVE TO RE-RECORD YOUR PROGRAMMED CASSETTE TAPES OR I WILL NOT MOVE IN THE EXACT MANNER.

# XV. SING-A-LONG

You can amplify your voice while playing recorded music from the same speaker. There are two ways to do this.

- A. USING THE VCM TRANSMITTER MIC:
1. Slide my Hearoid Mode Switch to the RECOGNITION position.
  2. Turn my Hearoid Power Switch to the ON position. Make sure BOTH Motor Switches on my back are ON.
  3. Slide the VCM Mode Switch to the R/C position.
  4. Turn the VCM Power Switch to the ON position.
  5. Make sure the Battery Switch on the VCM back is in the ON position.
  6. Insert a cassette into my Cassette Deck.
  7. Press the PAUSE Key to make sure the TALK ON/OFF Key is OFF.
  8. Press the PLAY Key on the VCM or on the front of my Cassette Deck.
  9. Press the TALK ON/OFF Key.
  10. Hold in the PUSH-TO-TALK button.
  11. When the music starts on the tape, sing into the VCM transmitter mic. Your voice and the music will come through the same speaker.
  12. Adjust the sound level by turning the Volume Knob.

- B. USING AN OPTIONAL (NOT INCLUDED) PLUG-IN MICROPHONE:
1. Slide my Hearoid Mode Switch to the RECOGNITION position.
  2. Turn my Power Switch to the ON position. Make sure BOTH Motor Switches on my back are ON.
  3. Insert a cassette into my Cassette Deck.



4. Plug microphone (not included) into the INPUT jack located below the built-in mic on the front of me.

NOTE: A dynamic microphone with a 1/8" mini-plug and 300-600 OHM impedance is suggested.

5. Press the PLAY Key on the front of my Cassette Deck.
  6. When the music starts on the tape, sing into the microphone. Your voice and music will come through the same speaker.
  7. Adjust the sound level by turning the Volume Knob.
- NOTE: A HOWLING NOISE INDICATES THE MIC LEVEL IS TOO LOUD. SIMPLY ADJUST IT BY TURNING THE VOLUME KNOB TO A LOWER LEVEL.

THE MICROPHONE INPUT JACK IS FOR SING-A-LONG AND VOICE AMPLIFICATION ONLY. THE OPTIONAL MICROPHONE CANNOT BE USED FOR RECORDING ONTO TAPE.

- C. TO CONTROL WHICH IS LOUDER, YOUR VOICE OR THE CASSETTE MUSIC:
1. Pull out Cassette Deck (slide OPEN lever).

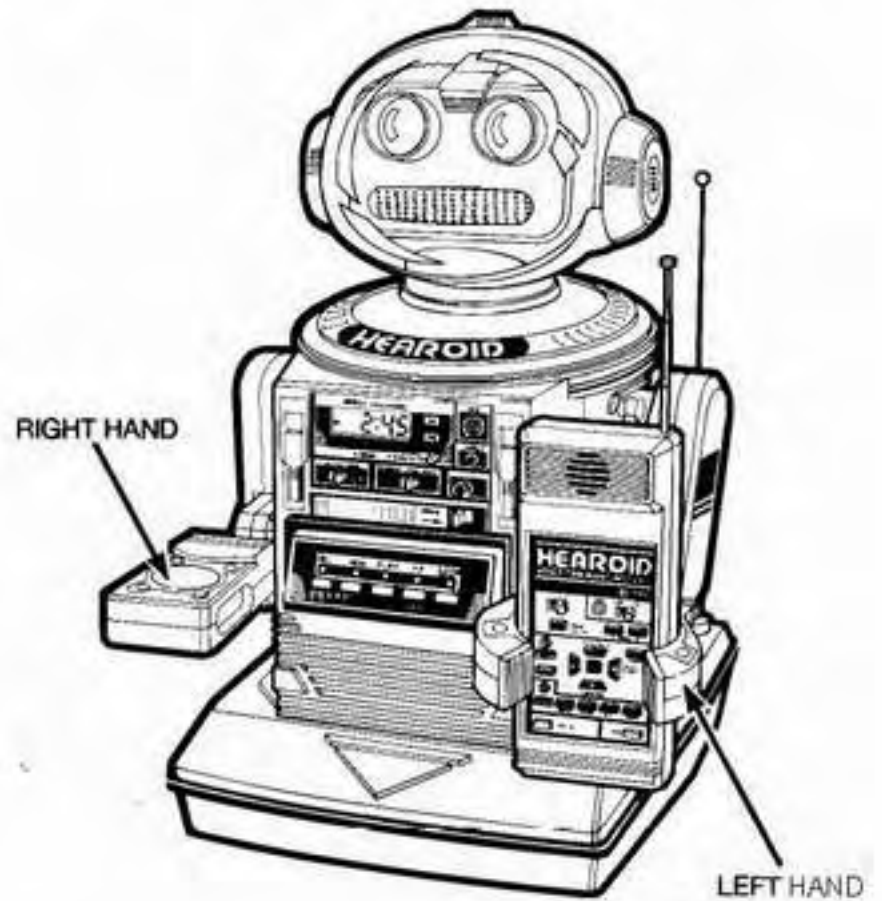
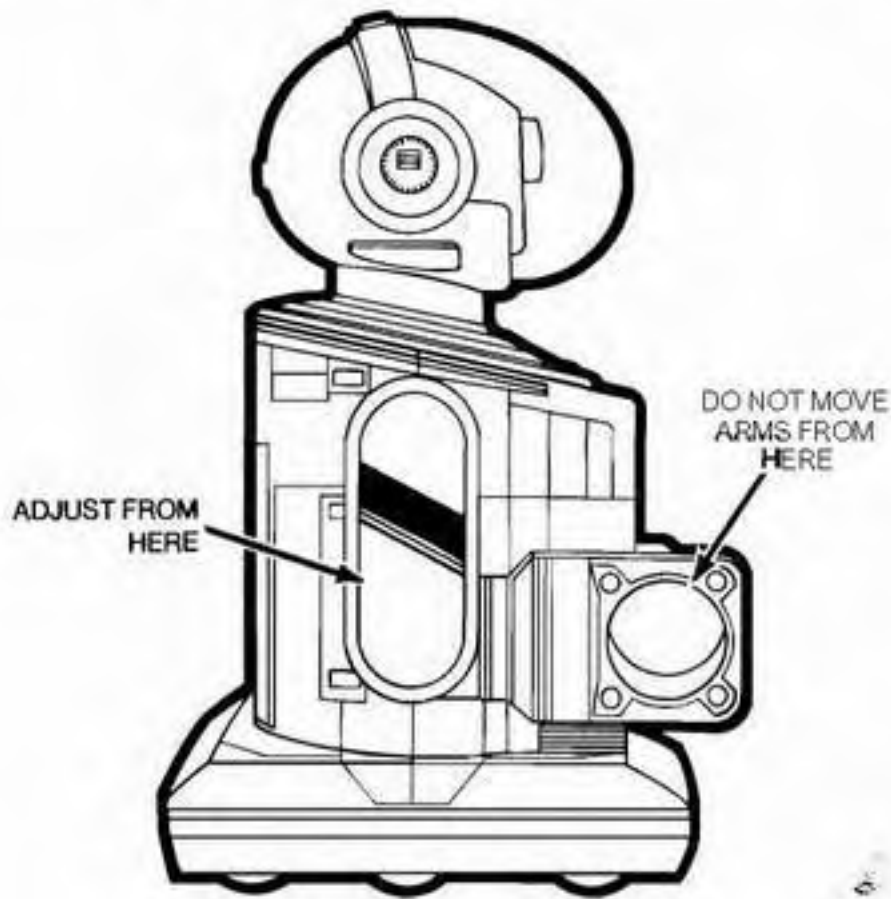


- NOTE: Microphone level can be adjusted with Volume Ratio Adjustment.
2. Locate the Volume Ratio Adjustment (see illustration).
  3. Insert a screwdriver (included) and turn:
    - a) To the right (maximum) to increase the microphone volume.
    - b) To the left (minimum) to increase the cassette music volume.

# XVI. MY ARMS AND TRAY

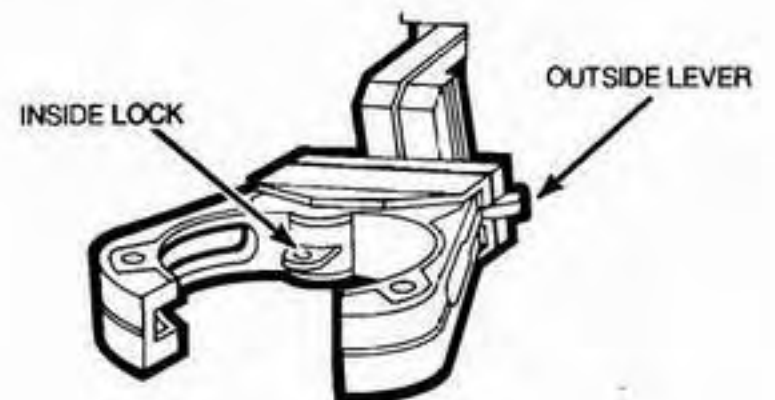
I have adjustable arms, a removable carrying tray, and two hands for carrying and delivering objects.

You will notice that my hands are different from one another. My right hand acts as a receptacle. My left hand has a grip function.



ALWAYS adjust my arms from the elbow up.  
DO NOT PULL MY ARMS FROM MY HANDS OR MY FOREARMS.

The left hand grip function works by moving the outside lever to the "open" direction. This will open my hand.

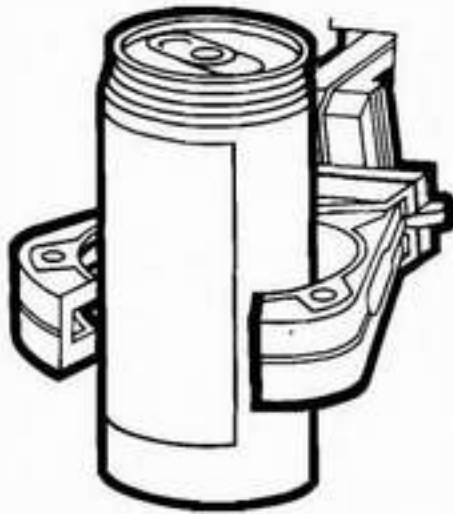


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# MY ARMS AND TRAY [CONT'D]

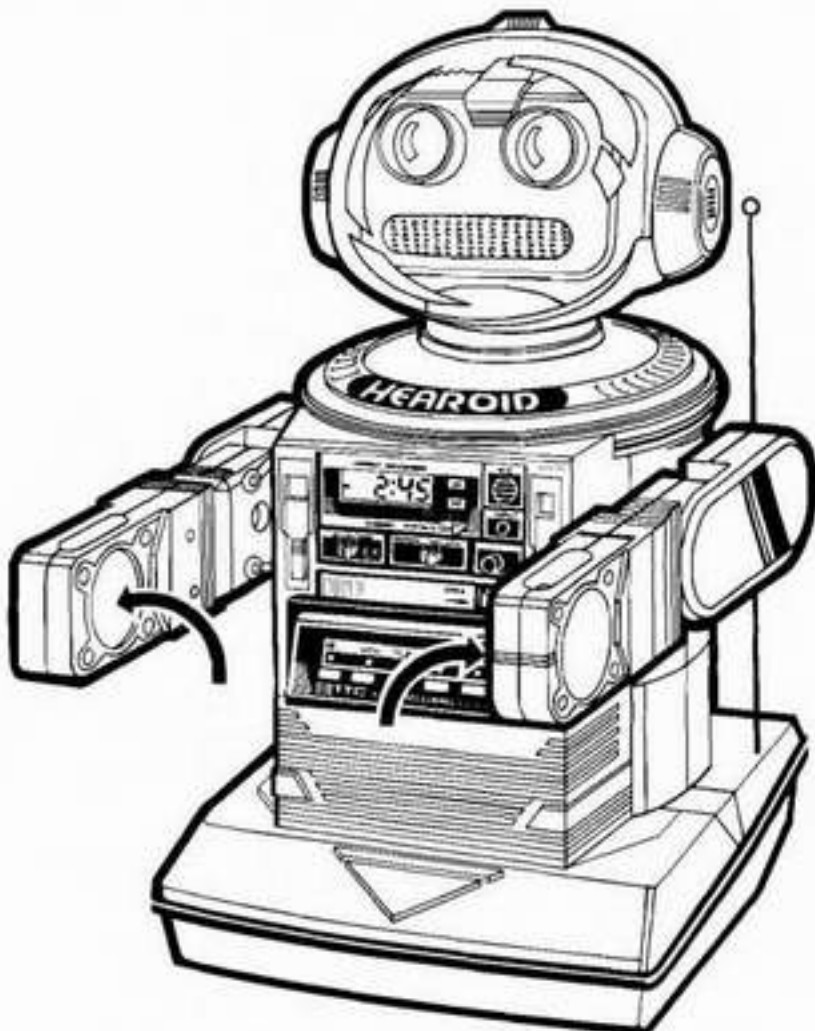
A THERE ARE TWO WAYS TO CLOSE MY HAND GRIP:

1. Move the outside lever to the "close" position.  
Or



2. Apply pressure to the Inside Lock.
  - a) You can push the Inside Lock by hand.
  - b) You can push the Inside Lock with an object you want me to close my hand on and hold. For example: Hand me a can of soda pop. When the lock is touched off or triggered, I will grab the can and hold it.

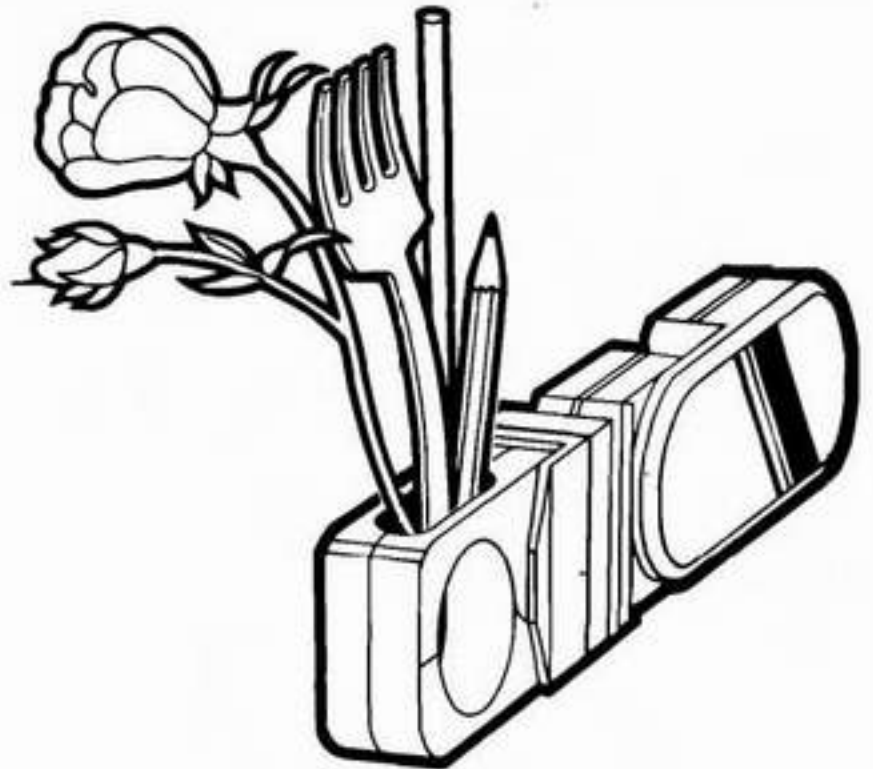
My hands have two positions. Never force my hands when turning them. See illustration for hand movement directions.



When turned vertically, my hands have oval openings for carrying objects like pencils, flowers, folded papers, eating utensils, straws, tools, et cetera.

When turned horizontally, my hands can hold drinking glasses and similar containers.

DO NOT PLACE TOO HEAVY AN OBJECT IN MY HANDS OR ON MY TRAY OR I MAY DROP OR SPILL THE OBJECT. 2.2 POUNDS IS THE MAXIMUM WEIGHT ALLOWANCE FOR MY TRAY.

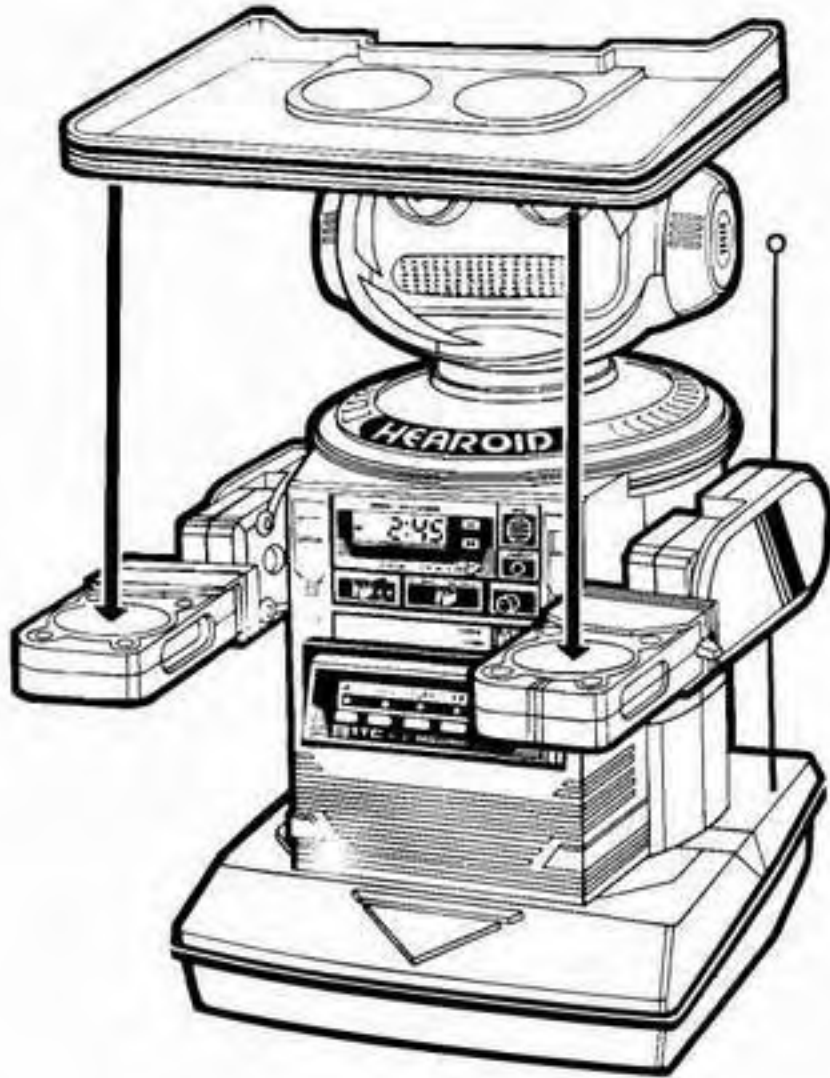




## MY ARMS AND TRAY (CONT'D)

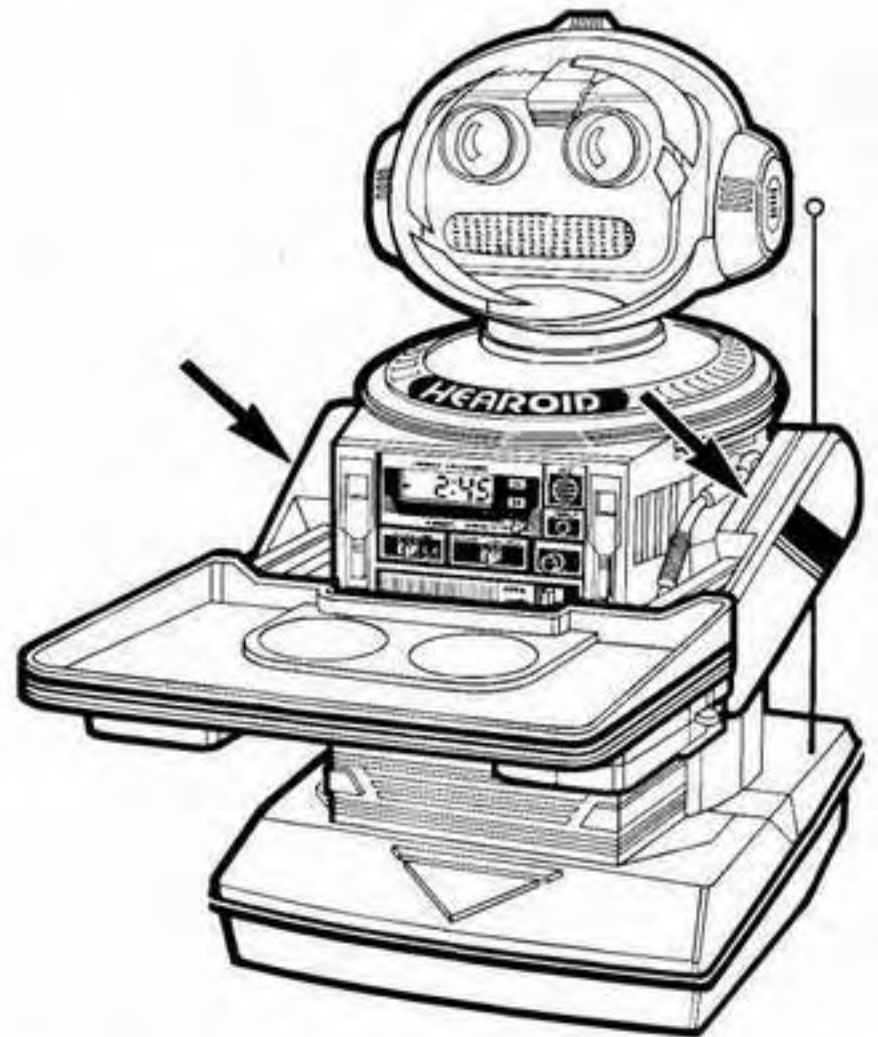
### B. TO INSERT TRAY:

1. Extend my arms straight out in front of me as pictured.
2. Place the tray so that it fits securely into my hands as illustrated.



3. Once the tray is secure, gently hold my arms above my elbows and push them down. This will lower the tray into the position illustrated.

The tray should now rest on my chest.



### C. TO REMOVE MY TRAY:

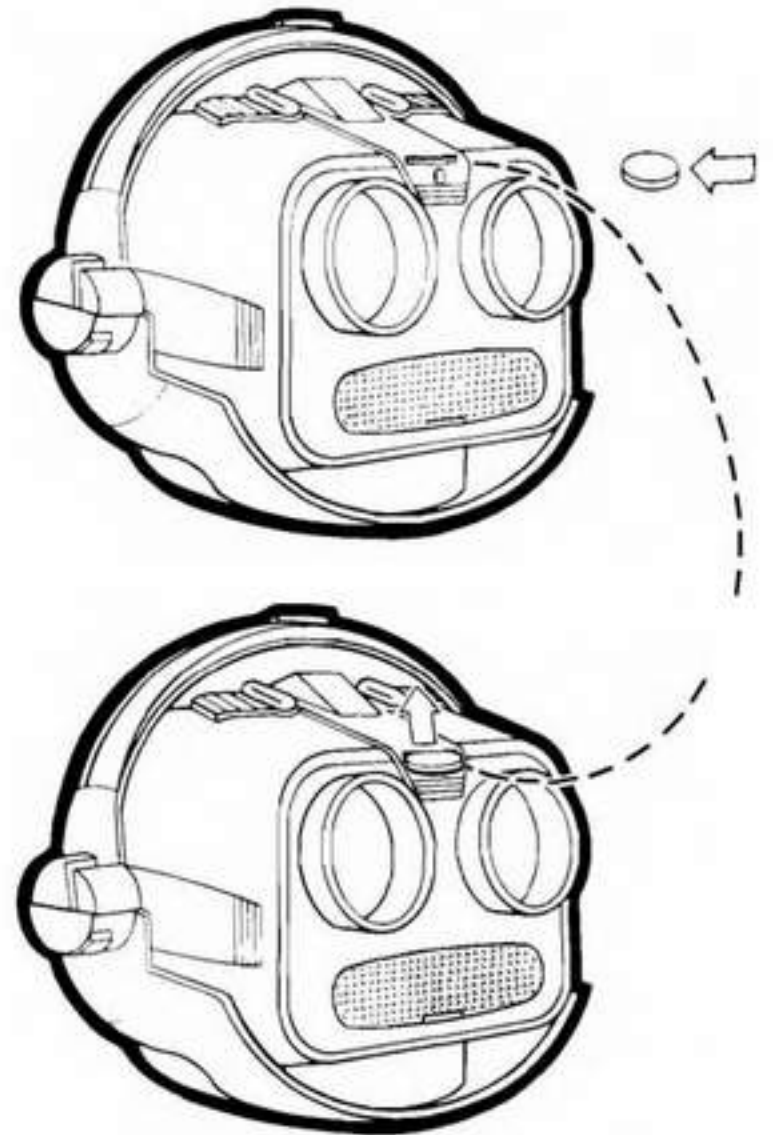
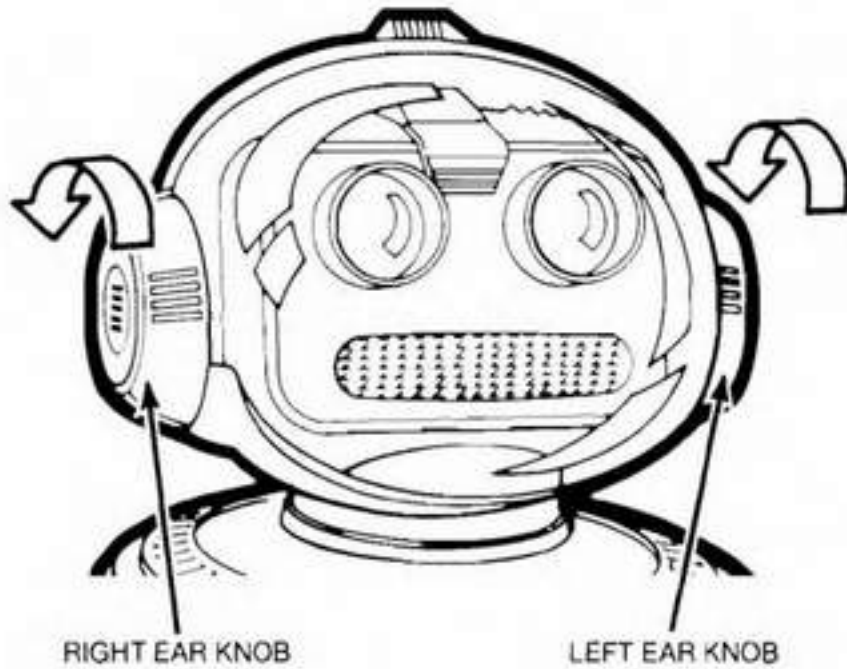
Simply reverse the above steps.

Replace my hands in the position you desire. Never pull or push my arms from hands or forearms. **ALWAYS MAKE ADJUSTMENTS FROM ABOVE MY ELBOWS.**

# XVII. BUBBLE MASK

You may remove my Bubble Mask to change my Headlight eyes and strobe mouth.

B. TO REPLACE HEADLIGHT EYES:

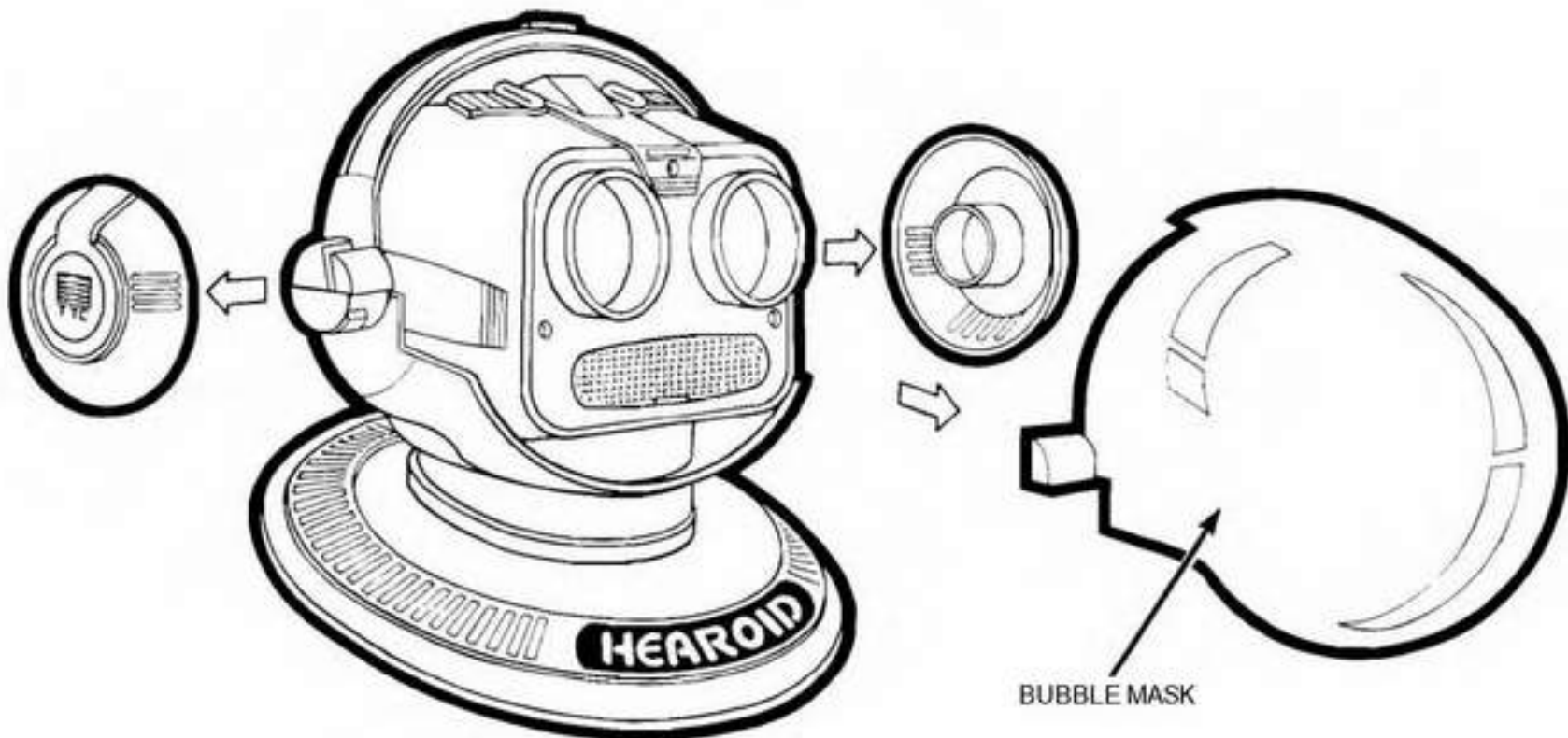


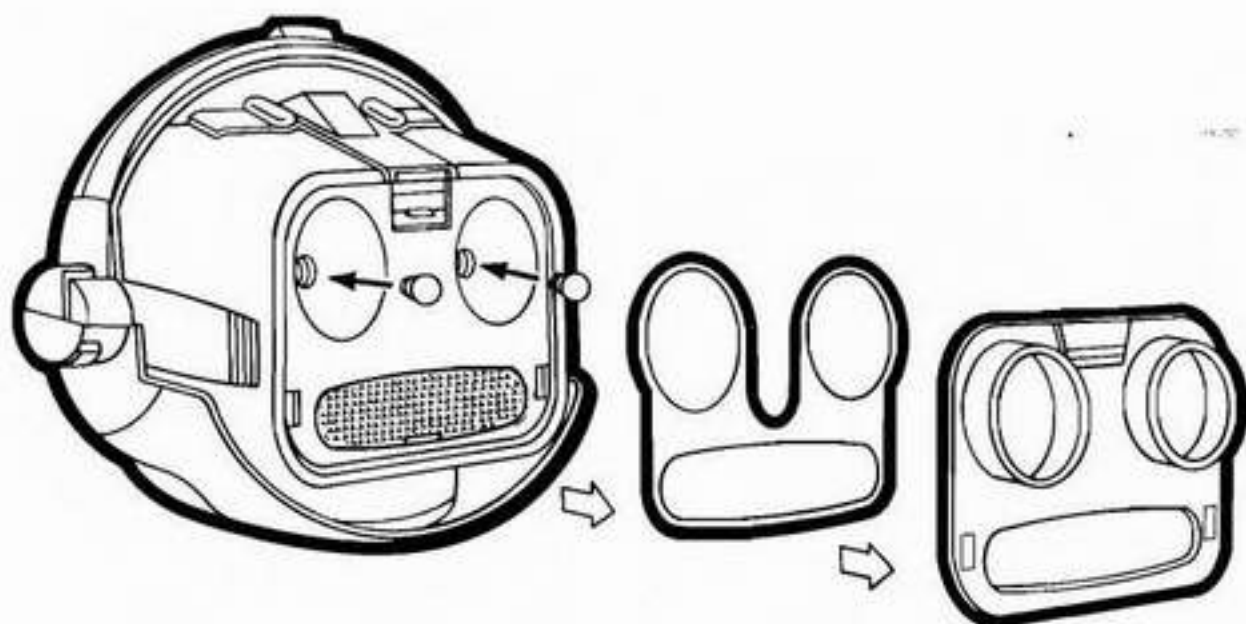
A. TO REMOVE BUBBLE MASK:

1. Slowly turn the Ear Knobs.
  - a) Turn the left Ear Knob to the right (clockwise).
  - b) Turn the right Ear Knob to the left (counter-clockwise).
2. Slowly pull the Knobs straight out. Remember which Knob is the left and which is the right.  
NOTE: The TTC logo will be straight across on the Knobs. If they are not even when you replace them, switch sides.
3. Carefully lift my Bubble Mask and pull straight out. This will expose my Face.

1. Insert a coin into the slot on top of my Face. Lift the coin to snap out my Face Mask.
2. Carefully pull my Face Mask straight out

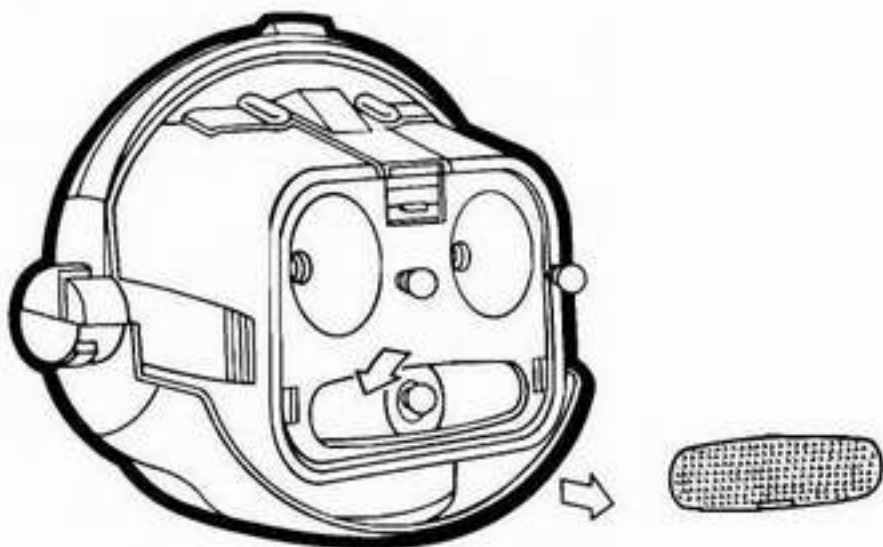
(continued)





3. The Bubble Eyes and Mouth inserts will fall out. These are easily replaced. Simply set them back into their slots.

4. Turn my Eye Bulbs to the left. Replace with 3 V, 200mA bulbs.



### C. TO REPLACE MY MOUTH BULB:

1. Carefully remove the plastic Mouth Grid.
2. Slowly turn the Mouth Bulb to the left. Replace with a 4.8 V, 250mA bulb. DO NOT USE A BULB LARGER THAN 6 V, 700mA.
3. Replace Mouth Grid.

### D. TO REPLACE FACE MASK:

1. Make sure Bubble Eyes and Mouth inserts are in place.
2. Place the Face Mask back in groove and snap in place.

### E. TO REPLACE BUBBLE MASK:

1. Insert top of Bubble Mask under top of Head.
2. Notice how the Bubble Mask is cut to fit the slot under top of Head.
3. Slide back and into place.
4. Slide Ear Knobs back on until they lock in place.

# XVIII. CARE AND MAINTENANCE

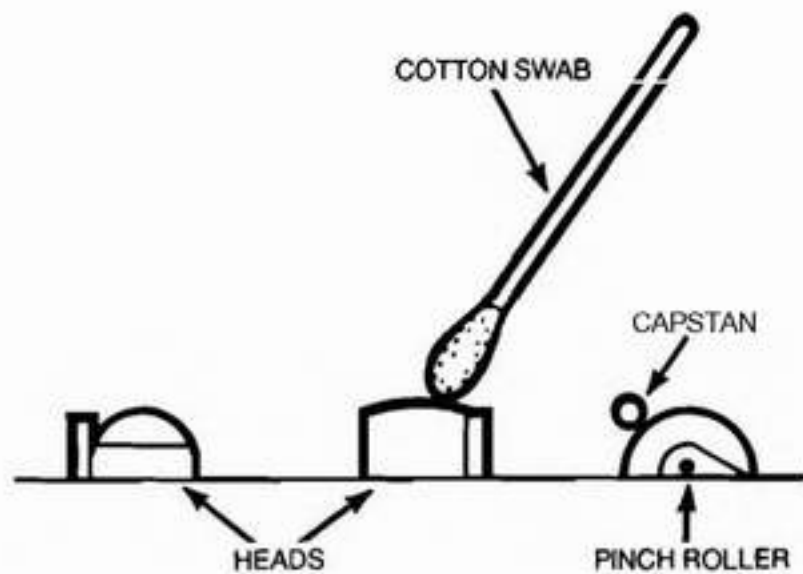
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Whenever I get dirty, or whenever the VCM gets dirty, surface wash with a damp cloth. DO NOT USE LIQUIDS OR CLEANSERS OF ANY KIND TO CLEAN.

To clean tires on my underside, use a damp cloth as well. DO NOT USE OIL OR ANY OTHER LUBRICANT ON ANY MOVING PARTS.

## CASSETTE DECK:

For best performance, you should clean my Cassette Deck once a month or after 30 hours of use.



## TO CLEAN HEADS/CAPSTAN/PINCH ROLLER:

These parts easily collect dust by direct-tape contact, which results in incorrect playing and recording. After long use, these parts should be thoroughly cleaned.

1. Slide open Cassette Deck like a drawer.
2. Remove cassette if one is inside.
3. Turn my Power Switch to the ON position.
4. Push the PLAY Key on Cassette Deck.
5. Carefully clean heads/capstan/pinch roller with a cotton swab. (see illustration)

To clean especially dirty parts, use a cotton swab dipped in rubbing alcohol.

## CASSETTE TAPES:

### HOW TO STORE CASSETTE TAPE:

Use a plastic storage case to keep out direct sun and extreme heat. Places with high humidity, dust, or dampness should be avoided. Do not place near magnets or magnetic fields, such as televisions.

# XIX. SAFETY AND CAUTIONS

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## **CAUTION: ELECTRICALLY OPERATED PRODUCT**

NOT RECOMMENDED FOR CHILDREN UNDER NINE YEARS OF AGE. AS WITH ALL ELECTRIC PRODUCTS, PRECAUTIONS SHOULD BE OBSERVED DURING HANDLING AND USE TO PREVENT ELECTRICAL SHOCK.

Do not operate me in or around water or liquid.

Do not operate me around swimming pools.

Do not drop or shake me or the VCM

Do not take me apart.

Do not expose me to extreme temperatures.

Do not hold, bend, or twist the antennas on me or the VCM.

DO NOT USE LIQUIDS OF ANY KIND TO CLEAN ME OR THE VCM AS THIS MAY CAUSE DAMAGE. When I get dirty or the VCM gets dirty, surface wash with a damp cloth.

Do not operate two or more HEAROIDS in the same location at the same time. Our radio signals will interfere with each other's performance.

Do not stall me. If I bump into a wall or obstacle or cannot climb an incline, STOP ME IMMEDIATELY. If I am not stopped or moved, my fuse may burn out.

Do not move my arms by pulling my hands or forearms. Always adjust my arms from my elbows upward.

Avoid spilling liquids on me.

When charging my Battery Pack, make sure my Power Switch is in the OFF position.

Do not use oil or any other lubrication on any moving parts.

When operating me with the VCM, stay more than five feet away from me while programming to make sure I am receiving clear signals.

Do not aim antenna directly at me. Aim the antenna upward so I can receive clear signals.

If humming or feedback occur when operating me by the VCM: adjust Volume Knob on me and try moving further away.

Do not place cassettes near a TV set or magnetic field. When storing tapes, use a plastic storage case to avoid direct sun, extreme heat, high humidity, dusty places, and magnetism.

Do not use loosely wound tapes. It will cause tangling and the tape can be damaged. Press rewind briefly to tighten tapes.

The best place to operate me is indoors, on a flat surface such as tiled floor, hardwood floors, vinyl floors, et cetera.

## **RADIO FREQUENCY INTERFERENCE**

Interference from other sources (indoors and outdoors) may have an effect on the performance and distance it takes to effectively transmit commands to me. Interference

may be caused by a number of factors:

1. Change in temperature.
2. Obstruction (walls, buildings, structures, et cetera.)
3. Other interference in the vicinity (cordless telephones, personal computers, garage-door openers, large motorized appliances, fluorescent lighting, et cetera.)

These factors do not indicate that I am out of order. If you suspect any of these conditions exist in your area, do not abandon me. Simply move me to a different location and try again.

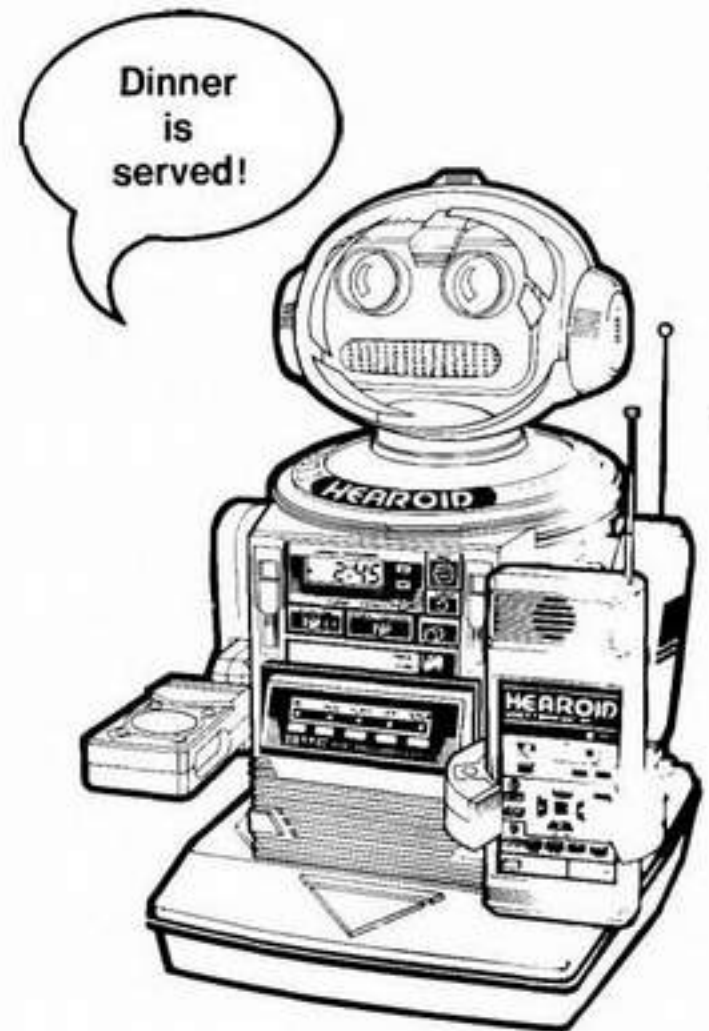
# XX. IDEAS AND USES

## BEGINNER LEVEL

1. Set up an obstacle course. See who can get me from start to finish the fastest and with the fewest mistakes or collisions. Take turns using the VCM in the R/C and VOICE modes.
  2. Amplify your voice at a presentation.
  3. Deliver a recorded speech to go along with a home slide show. You can start and stop along the way for questions or comments using the VCM.
  4. Use me to play musical chairs. Start and stop the tape of music using the R/C or VOICE modes on the VCM.
  5. Record your own ghost stories with scary sounds. Then turn out the lights and start the tape to see my mouth flicker in the dark as your story is told. Have my Headlight eyes turn off-and-on.
  6. Take me for a walk while using the VCM. I'll be your pet without a leash.
  7. Sing-a-long with your favorite superstar through my speaker while music is playing on the Cassette Deck.
  8. Recite poetry or a dramatic scene. Play the tape back and I'll perform for you.
  9. Listen to any standard cassette tapes of music, stories, or lectures.
6. Teach your parrot to talk. Position me by your bird and play recorded words over and over at pre-programmed times during the day.
  7. Study a foreign language. Set my alarm to play recorded words and phrases throughout the day. Exercise your memory skills each time you hear the tape.
  8. Amplify two voices at once. One person can **sing** into my built-in microphone or an optional mic while the other person sings harmony into the VCM, for a **duo-sing-a-long**.
  9. Use me as a kitchen timer. Program a path **between** the kitchen and the living room. Then set the alarm for the desired baking time. Go into the living room and relax. I will come into the room and remind you when it is time to check the oven.

## INTERMEDIATE LEVEL

1. Create a dramatic scene by recording one part of a play on tape, leave enough space for your response. Then when you play back the tape, you can respond to me at the appropriate time.
2. Leave a message for your roommate to clean up his/her room.
3. Record your plans and schedule for the next day. Then program me to remind you while you have breakfast the next morning.
4. Set my alarm to remind you of things to do.
5. Create your own program library to send me to various rooms in your house from the Home Base. Pop in the right tape, and I'll deliver things anywhere in your home.



## ADVANCED LEVEL

1. Use my built-in microphone to spy. Send me into a room as a surveillance-robot and command me to record the conversation by using the VCM remote control from another room. Later, playback the tape and surprise everyone with their own dialogue!
2. Create your own vocabulary. Make up words and sounds to amaze your friends when I respond to an alien language that only you know! "Klaatu barada nikto."
3. I'll be your electronic butler by greeting guests at the door, welcoming them with glowing eyes and a flickering mouth. Use my tray to serve snacks and drinks to your guests. I'll be your very own butlerbot.
4. Do impersonations of your favorite TV or movie stars; store your imitation on tape, then play it back and let me be a **robersonator**.
5. Have me stand guard or walk guard while recording the sounds and voices in a particular area. Later, playback the tape. See who passes by most often, pick up their **conversations**. I'll be your securitoid.
6. Play your favorite dance music with the lights off. Watch my Headlight eyes glow as my mouth flickers to the beat. Program me to dance along. I'll be your own discobot.
7. Dress me up as a famous person, record their voice from a TV show or record. Play it back and let me be the performeroid.
8. Use me for dictation. Record a speech or homework; play it back and transcribe it to paper. I'll be your automatic and versatile dictobot. Turn the Cassette Deck off and on as needed, rewind to review a part, or skip over a segment by using your voice or the remote control on the VCM.
9. Secure an artist's brush or pen in my grasping hand. Hang up some paper at my level, then move me in and out, up, down, and around to draw illustroids. Make original **robart**!
10. Record important messages for your family or friends. Set my timer to play the tape back when you know they'll be home. I'll be the family's messagoid.

Good afternoon,  
Mr. Phelps. Your mission,  
should you decide to accept  
it, is to recharge my battery.



# XXI. COMMON QUESTIONS

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## QUESTION

One night, we were watching television and Hearoid was sitting in the corner minding his own business. A plane flew over and Hearoid took off, out of control. Why did he do that?

## ANSWER

Hearoid receives radio frequency signals. While you were watching television, he probably woke up when the plane flew over. Hearoid may seemingly take off on his own. But he is actually responding to a radio signal in the area. Planes, garagedoor openers, television remote controls, and other devices which send radio signals, may cause Hearoid to act as if he has a mind of his own.

---

## QUESTION

Hearoid won't respond when I aim the VCM at him. Why doesn't he move when I tell him to?

## ANSWER

You are probably aiming the VCM antenna directly at Hearoid. In order for the signal to be received clearly, keep the antenna aimed and positioned straight up.

---

## QUESTION

I noticed there's a TIMER setting on Hearoid's Power Switch. What does the TIMER do?

## ANSWER

The TIMER setting will play back tapes at a pre-set time. See section IV (Time of Day), section XI (Hearoid—Recognition Mode), and section XIII (Hearoid—Repeat Mode).

---

## QUESTION

I can't get Hearoid to work after turning the Power Switch to TIMER. What's the scoop?

## ANSWER

You must set the Power Switch back to ON. REMEMBER: Be careful when turning the Power Switch to ON so you don't mistakenly go to the TIMER setting.

---

## QUESTION

What's the purpose of the Battery Switch on the back of the VCM?

## ANSWER

The Battery Switch is a quick way to erase the memory of all voice commands you programmed into the VCM. You should keep it turned ON to save your commands. If you turn the switch OFF, you will lose all memory. Also, to help preserve the life of the VCM batteries, you should store the VCM with the Mode Switch in the R/C position.

## QUESTION

Is the Battery Charger Light supposed to be on when I'm using Hearoid?

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## ANSWER

No. The Battery Charger Light will glow when the Battery Pack needs recharging. REMEMBER: When you first turn on Hearoid, the Battery Charger Light will glow for about 5 to 10 seconds, then turn off. This is normal. However, if it continues to glow for over 30 seconds, then you should recharge the Battery Pack immediately.

## QUESTION

Hearoid works when I press the keys on the VCM, but he won't do anything when I talk into the mic. What am I doing wrong?

## ANSWER

You're probably not changing the VCM Mode Switch to the VOICE position. Hearoid WILL NOT work by voice commands while in the R/C position. As a rule, you should check carefully which modes you're operating in. Most of your problems can be corrected by making sure you are in the proper mode setting!

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## QUESTION

I lost Hearoid's Home Base. Can I still operate him?

## ANSWER

Yes. Home Base is simply an indicator—a starting point. You may use any other stationary object as a Home Base: the same corner of a room, a fixed piece of cardboard, etc. The point is to start Hearoid from the same place when you're playing back programmed tapes.

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## QUESTION

Monday, I programmed a tape, set the timer, and set the Mode Switch to RECOGNITION. Yesterday at 1 33pm, Hearoid played back my programmed tape, but he didn't follow my commands. He just sat there with the tape playing. Should I send him in for service?

## ANSWER

No. There is nothing wrong with your friend, Hearoid. In order for Hearoid to follow your programmed (taped) commands, you must set his Mode Switch to the REPEAT position. The RECOGNITION Mode is just to play back music or messages (not movement commands) at a pre-set time.



# XXII. TROUBLESHOOTING CHART

PROBLEM	PROBABLE CAUSE & SOLUTION
No power	<ol style="list-style-type: none"> <li>Dead or weak batteries: make sure Battery Pack is fully charged (12–16 hours). Replace weak or dead Alkaline Batteries—VCM and Hearoid. NOTE: Check Battery Charger Indicator Light to see if it's glowing. Battery Pack needs recharging if the Light stays on. Light will not work while in TIMER position.</li> <li>Fuse is burnt-out: check wire in fuse. (See Page <u>6</u>.) REMEMBER: IF YOU REMOVE OR REPLACE THE BATTERIES IN THE VCM, YOU MUST RETRAIN YOUR COMMAND WORDS.</li> <li>VCM Battery Switch (on back of VCM): This switch should always stay ON, unless you wish to erase Memory.</li> <li>Check to make sure BOTH Motor Switches on back Accessory Interface Panel are ON.</li> </ol>
Hearoid won't move	<ol style="list-style-type: none"> <li>You may not have all power switches ON: Check to make sure Hearoid Power Switch is ON. Motor Switches on back: ON. If using VCM, make sure VCM Power Switch is ON. VCM Battery Switch: ON.</li> <li>VCM out of range: move closer to Hearoid so a clear signal is received.</li> <li>DO NOT aim antenna directly at Hearoid.</li> </ol>
Battery won't charge	<ol style="list-style-type: none"> <li>Battery Pack not plugged-in; Charger Plug not plugged-in: check all connections.</li> <li>120 Volt AC Outlet not supplying power: Try charging Battery Pack at a different Outlet.</li> </ol>
Alarm doesn't beep	<ol style="list-style-type: none"> <li>Alarm not properly set: make sure Time Setting Key is set to ALARM ON position. Does Alarm Time Set match AM or PM of real time?</li> </ol>
Train Light does not blink	<ol style="list-style-type: none"> <li>VCM Mode Switch not properly set: position to TRAIN.</li> <li>Training Block not accessed: press ENT Key and Training Block Key again. Then press the Movement or Tape Function Keys.</li> <li>TALK ON/OFF Key ON: press PAUSE Key to make sure TALK Key is OFF. Repeat Training sequence.</li> </ol>
Train Light stops blinking before voice is trained	<ol style="list-style-type: none"> <li>Transmitter mic is picking up noise or interference: press the Movement or Tape Function Key again. Don't hold in the PUSH-TO-TALK button until you're ready to speak your command.</li> </ol>
Train Light won't stop blinking	<ol style="list-style-type: none"> <li>Not receiving clear voice signal: speak normally into transmitter mic while holding in PUSH-TO-TALK button. Hold VCM about three inches from your mouth.</li> <li>Command words not long enough: the word should last between .2 and 0.96 seconds.</li> </ol>

# TROUBLESHOOTING CHART [CONT'D]

PROBLEM	PROBABLE CAUSE & SOLUTION
Hearoid won't respond to voice commands	<ol style="list-style-type: none"> <li>1. Mode Switches not properly set: position VCM to VOICE; Hearoid to RECOGNITION or TEACH. Hearoid will not respond to signals from the VCM while in the REPEAT Mode.</li> <li>2. TALK ON/OFF Key ON: press PAUSE Key to make sure TALK Key is OFF.</li> <li>3. Antenna not extended or out of range: move closer to Hearoid when using the VCM. Extend antenna.</li> <li>4. Didn't press ACTION or TAPE Keys: remember: for all movements, press ACTION Key first; for all tape functions, press TAPE Key. This is only necessary in the VOICE Mode.</li> <li>5. Not speaking same as when trained: make sure you're speaking your command word the same way as when trained.</li> <li>6. Not properly trained: did you say the same command word in each Training Block to increase accuracy and response?</li> </ol>
Performs incorrect function in VOICE Mode: One User	<ol style="list-style-type: none"> <li>1. Command words too similar: make sure each command word is distinct and different sounding from one another.</li> <li>2. Improperly trained: are you sure you pressed the appropriate Key when you trained? If not, retrain command words.</li> </ol>
Performs incorrect function in VOICE Mode: Two Users	<ol style="list-style-type: none"> <li>1. Did you press USER 1 or USER 2 Key to identify your voice?</li> <li>2. Make sure your command words do not sound like the other User's command words.</li> </ol>
Programmed tapes won't work properly	<ol style="list-style-type: none"> <li>1. Mode Switches not properly set when programmed: programmed tapes should be made with the VCM in R/C Mode; tapes will respond with less accuracy if programmed in VOICE Mode. Did you record with Hearoid set to the TEACH position?</li> <li>2. To playback programmed tapes, Hearoid Mode Switch should be set to REPEAT Position.</li> <li>3. Home Base not stationary: make sure Home Base does not move after you program a tape. Set Hearoid back to exact same position during playback.</li> <li>4. Steering not adjusted: see Steering Adjustment section.</li> <li>5. BOTH Motor Switches on Accessory Interface Panel must be ON or Hearoid may drift off course.</li> <li>6. Tape heads/capstan/pinch roller may be dirty: see Care and Maintenance section.</li> <li>7. Tape rewound to leader: did you record on the leader tape? Make sure tape is past leader when recording. See Note for cassette cueing on Page <u>26</u>.</li> </ol>
Noise or feedback	<ol style="list-style-type: none"> <li>1. Volume too loud: turn Volume Knob lower.</li> <li>2. VCM too close to Hearoid.</li> <li>3. Do not operate Hearoid around fluorescent lights.</li> </ol>

# XVIII. TECHNICAL SPECIFICATIONS

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## 1. CASSETTE RECORDER

Type: 2 Track monaural  
Tape Selection: normal bias only  
Tape Speed: 4.75 cm per second  $\pm$  /  $-$  0.3%  
Wow & Flutter: within 0.3%

## 2. ALARM CLOCK

Display: liquid crystal display  
Accuracy:  $\pm$  /  $-$  3 sec/day  
Power Supply: 1.5 V alkaline size AA, 2 required  
Battery Life: 5,000 hours typical

## 3. BATTERY CHARGER (U.L. LISTED)

Type: plug-in AC adapter with 6 foot cord and coaxial  
"barrel type" connector (negative center pole)  
Input: 120 VAC, 60 HZ, 10 WATTS  
Output: 6 VDC, 300mA

## 4. RECHARGEABLE BATTERY

Type: sealed lead acid  
Output Rating: 6 V, 4.0 Ah  
Physical Size: 2 $\frac{3}{4}$ " L x 1 $\frac{3}{4}$ " W x 4" H  
Terminals/Connectors: lead wires with coaxial "barrel  
type" connector (negative center pole)

## 5. GENERAL

Battery Life: 3 hours continuous at 5.5 Volts (normal)  
Battery Indicator: red light indicates when discharged to  
5.7 Volts  
Operating Temperatures: 5C ~ 40 C (41 F ~ 104 F)

## 6. BULBS

Replacement Bulbs for Headlight Eyes: 3V, 200mA  
Replacement Bulb for Mouth: 4.8 V, 250mA (Do not use  
Bulb larger than 6V, 700mA)

## 7. ACCESSORIES

Detachable Tray (included): 2.2 lbs maximum weight  
allowance  
External Auxiliary Microphone: Dynamic Microphone,  
 $\frac{1}{8}$ " mini-plug, 300 ~ 600 OHM impedance  
(not included)

## 8. OPERATING FREQUENCY: 49.830 MHz

# XXIV. WARRANTY INFORMATION

## HEAROID™ Warranty

### Limited 90-day warranty on Hearoid™ Product (valid in the U.S. only)

TTC warrants to the original consumer purchaser that this Hearoid shall be free from any defects in materials or workmanship for a period of 90 days from the date of purchase. This limited warranty does not apply to cassette tapes and accessories purchased by the consumer. Should you find, during the warranty period, that this Hearoid Product is defective, TTC will repair or replace the Product, at its option, free of charge. To receive this warranty service do the following:

Send TTC the product and reasonably acceptable proof of the date of the purchase of the product prepaid at your risk of damage during shipment addressed as follows:

TTC  
Hearoid Customer Service  
2009 East 223rd Street  
Carson, CA 90810

This warranty shall not apply if Hearoid has been damaged by negligence, accident, unreasonable use, or by other causes unrelated to defective materials or workmanship. This warranty is also void if the serial number has been altered, defaced or removed.

*Any applicable implied warranties arising out of the sale of this unit, including warranties of merchantability and fitness for a particular purpose, are hereby limited to ninety days from the date of purchase. TTC's liability is limited to the repair or replacement of the defective unit in its sole discretion. Consequential or incidental*

*damages resulting from a breach of any applicable express or implied warranties are hereby excluded.*

TTC shall have no liability or responsibility to a purchaser, customer or any other person or entity with respect to any liability, loss or damage caused or alleged to be caused directly or indirectly by any cassette tapes. This includes, but is not limited to, any interruption of service, loss of business or anticipatory profits or consequential damages resulting from the use or operation of such cassette tapes.

The provisions of the foregoing warranty are valid in the United States only. This warranty gives you specific legal rights and you may also have other rights which vary from state to state. Some states do not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion of incidental or consequential damages, so the above limitations and exclusions may not apply to you.

**Out of warranty repair:** If your Hearoid Product requires service other than under warranty, please contact TTC for repair information at the following address:

TTC  
2009 East 223rd Street  
Carson, CA 90810

For warranty information or service call:  
**(213) 834-8825**

**IF YOU HAVE ANY QUESTIONS, call for assistance:**

(213) 834-8825

# XXV. QUICK-CHECKLIST

Hearoid is a sophisticated machine of the future. There are many things to remember. Don't get frustrated if you run into a problem. Sit down, relax, and go through this Quick-Check List point by point.

## HEAROID

1. Is the Battery Pack charged (12–16 hours)?
2. Is the Hearoid Power Switch properly set to either ON or TIMER?
3. Are both Accessory Interface Panel Motor Switches ON?
4. Is the Hearoid Mode Switch properly set?
  - a) Teach—to RECORD programs (MOVEMENTS) onto tape; to receive commands from VCM.
  - b) Recognition—to play back music or voice (NO MOVEMENT) tapes; to receive commands from VCM.

- c) Repeat—to play back programmed (MOVEMENT) tapes; will NOT receive commands from VCM.

## VCM

1. Is the VCM Power Switch ON?
2. Is the VCM Battery Switch ON?
3. Is the antenna extended and aimed away from Hearoid?
4. Is the VCM Mode Switch properly set?
  - a) Train—to train voice commands.
  - b) Voice—to control Hearoid using voice commands.
  - c) R/C—to control Hearoid using remote control.
5. Make sure the TALK ON/OFF Key is OFF when training or commanding movements!

# XXVI. MODE REVIEW CHART

DESIRED FUNCTION	HEAROID MODE SWITCH			HEAROID POWER SWITCH			VCM MODE SW	
	TEACH	RECOGNITION	REPEAT	ON	TIMER	MOTOR SWITCHES ON	TRAIN	VOICE
To train voice command words							X	
To control Hearoid by voice		X		X		X		X
To control Hearoid by remote control		X		X		X		
To record movements onto tape by voice commands	X			X		X		X
To record movements onto tape by remote control	X			X		X		
To record voice onto tape	X			X				
To play back program (movement) tapes			X	X		X		
To play back program (movement) tapes at a pre-set time			X		X	X		
To play back music or voice (non-movement) tapes		X		X				
To play back music or voice tapes at pre-set time		X			X			
To sing-a-long with music		X		X				

REMEMBER: Set VCM to R/C before turning OFF.  
 Batteries will drain faster if set to any other Mode than R/C. NEVER turn OFF Battery Switch unless you wish to erase the memory and re-train voice command words.

TCH	VCM		CASSETTE DECK		TALK ON/OFF KEY		PUSH-TO-TALK BUTTON		
	R/C	POWER SWITCH ON	BATTERY SWITCH ON	RECORD	PLAY	ON	OFF	PUSHED IN	NORMAL
		X	X				X	X	
		X	X				X	X	
X		X	X				X		X
		X	X	X			X	X	
X		X	X	X			X		X
					X				
					X				
X		X	X		X			X	

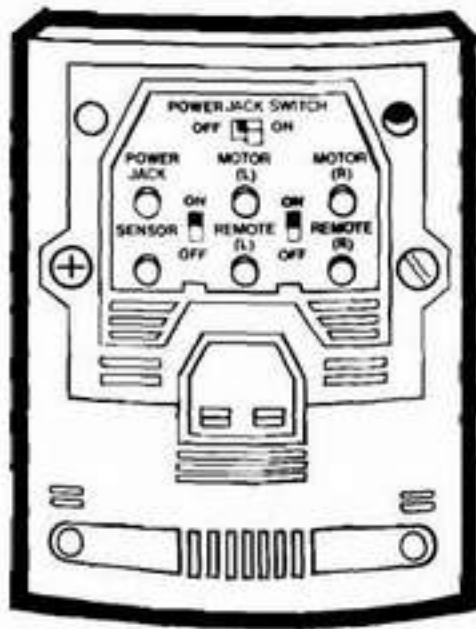
# XXVII. ACCESSORY INTERFACE PANEL

**WARNING: DO NOT PLUG OR ATTACH ANYTHING (INCLUDING APPLIANCES, DEVICES, ETC.) INTO THE ACCESSORY INTERFACE PANEL. THIS IS VERY IMPORTANT. YOU MAY DAMAGE HEAROID. THIS PANEL IS FOR ACCESSORIES WHICH WILL BE SOLD SEPARATELY AT A LATER DATE. FURTHER INSTRUCTIONS WILL BE INCLUDED WITH EACH ACCESSORY THAT YOU PURCHASE.**

**NOTE:** Keep the Power Jack Switch OFF until you use the special accessories soon to be released.

Coming soon...a revolutionary line of accessories to expand Hearoid to interface with the future.

**DON'T FORGET TO FILL OUT THE CARD BELOW TO RECEIVE INFORMATION ON HEAROID ACCESSORIES!**



By tapping into the accessory panel, you can attach a line of SPECIAL accessories TTC and the store where you purchased Hearoid will soon have available.

**FILL OUT THE CARD NOW!**

MAIL TO:

TTC  
2009 East 223rd Street  
Carson, California 90810

Manufactured and distributed by ITC/2009 East 223rd Street/Carson, CA 90810

© TTC 1985 Made in Japan Patent Pending

## A PHOTO SENSOR!

To activate Hearoid by a photo-electric eye, simply pass by the photo sensor and Hearoid will be activated.

## INFRARED SENSOR!

Hearoid will soon be able to avoid all obstructions. If he approaches a wall or a person, he will steer away all by himself!

## SUPER-SONIC SENSOR

Soon you won't be able to walk away from Hearoid. He'll follow you everywhere with this Super-sonic sensor.

## TRACER TAPE!

With this special Tracer Tape, you'll be able to chart out a course on the floor that Hearoid will follow exactly! Make him turn tight corners, travel from room to room...all without programming him!

## VACUUM CLEANER!

Place Hearoid's Vacuum Cleaner in his hand and watch him sweep up your mess. Used with the special Infrared Sensor, Hearoid will be able to vacuum around furniture while you rest. Make Hearoid your Janitroid!

## TELEVISION CAMERA!

Compatible with most standard TVs or VCRs, this special-designed black & white camera is the world's smallest. Sit at your TV and see and hear what Hearoid is seeing and hearing. You can even use his transmitter to talk to others through him.

**AND THIS IS ONLY THE BEGINNING! ITC IS CONSTANTLY DEVELOPING AND INVENTING NEW WAYS TO ENHANCE YOUR HEAROID. DON'T LEAVE YOUR ROBOT IN THE PAST. YOUR MECHANICAL MAN IS BECOMING MORE HUMAN.**

Yes! Keep me posted on all product developments, including special accessories for my Hearoid robot. I understand I am under no obligation.

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_

STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_