

The logo for Hand Held Voice features a stylized graphic of five horizontal lines of varying lengths on the left, resembling a staircase or a series of steps. To the right of this graphic, the words "Hand Held" are stacked above "Voice". The word "Voice" is significantly larger and bolder than "Hand Held". A registered trademark symbol (®) is positioned at the top right of the word "Voice".

Hand Held Voice[®]

Owner's Manual

Owner's Manual written by Paul Peake
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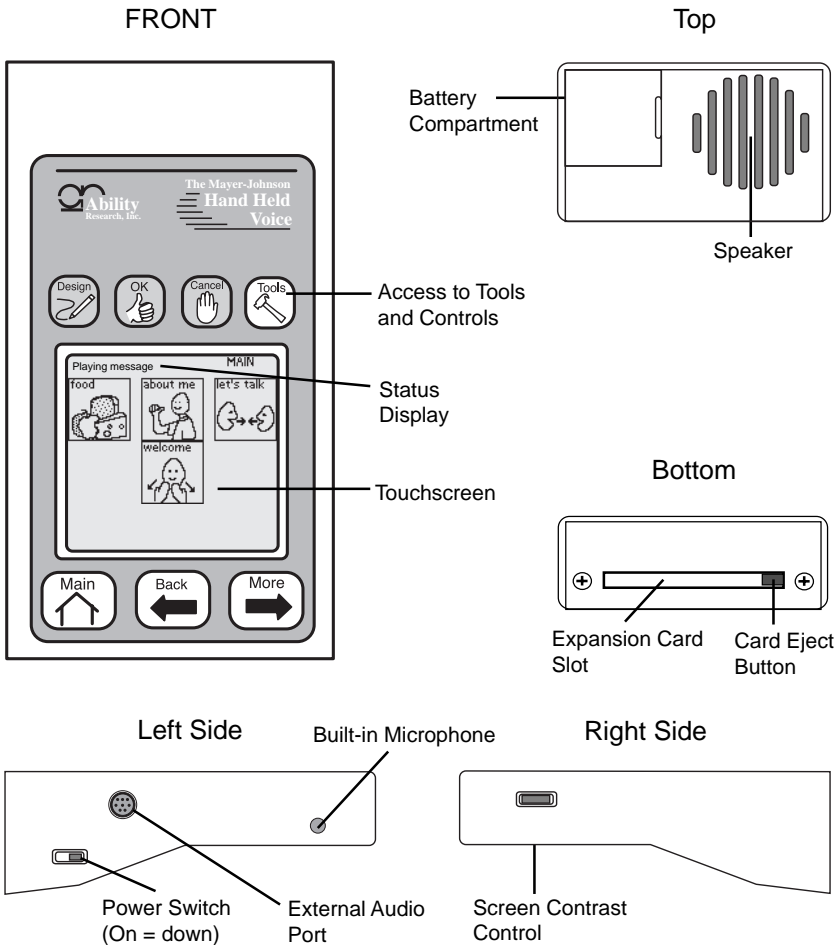
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Getting Started

Package Contents

- Hand Held Voice (HHV)
- 4 AA Batteries
- Owner's Manual
- Picture Index
- Instructional Video
- Carrying Case (optional)
- Expansion Card (optional)
- Mounting Plate (optional)
- External Recording Cable (optional)
- External Speaker Cable (optional)

HHV Overview



Installing the Batteries

The HHV requires four alkaline AA batteries. Battery life will depend on the volume level, usage, and sleep time setting. Refer to **SleepTime** in the *Tools and Controls* section.

To install the batteries:

- Be sure the power switch is in the **off** position before installing or changing the batteries.

 1. Insert a coin into the slot in the battery compartment door and gently pry the door loose from the HHV case.
 2. Carefully remove the battery tray.
 3. Insert the four AA batteries into the battery tray as marked.
 4. Insert the battery tray back into the compartment. Be careful not to pinch the connecting wires.
 5. Insert the end of the compartment door opposite the notch into the slot in the side of the HHV case and press firmly on the notched side of the door until it snaps into place.

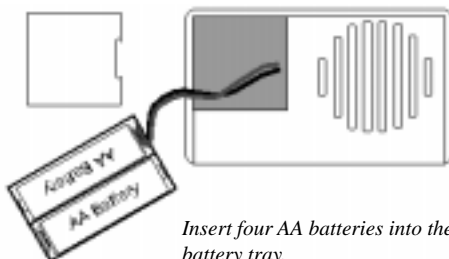
Slide the power switch down to the on position and make sure an image appears on the screen.

If you do not see an image, verify that the screen contrast is turned up and the batteries were inserted in the correct direction.

Warning Batteries can explode or leak and cause burn injury if recharged, disposed of in fire, mixed with a different battery type, inserted backwards, or disassembled.



Use a coin to pry loose the battery door.



Insert four AA batteries into the battery tray.

Using the Hand Held Voice

This section provides important information about working with the touchscreen and navigating the communication boards on the HHV.

The base unit comes with a few preprogrammed boards intended to demonstrate potential content and organization. You may feel free to change the content of these sample boards as necessary.

Using the Touchscreen

The HHV touchscreen is not pressure sensitive. It relies on a grid of infrared light beams crossing the screen to interpret selections. By touching the screen, the user breaks a horizontal and a vertical light beam at the same time, registering a button selection. This approach requires only a very light touch.

Important Pressing harder on the screen of the HHV will never assist in successfully registering a button selection. Excessive pressure on the screen can cause damage.

Important Touchscreen Information:

- The activation time of the HHV is adjustable. A selection dwell (delay) may be enabled to allow a user to drag his/her finger across the touchscreen without activating unwanted buttons. Refer to **TouchRate** in the *Tools and Controls* section.
- **Caution** The selection dwell feature can be confusing if you forget it is enabled on the device. It may appear that the device is not responding if you do not hold your finger on the button for the set amount of time.
- A visual flash of the button will occur when the HHV registers a button selection.
- On the communication boards, buttons will not automatically reactivate if the user leaves their finger on the screen after selecting a button. The user must move or remove their finger from the selected button before another button selection will occur.
- Button selections made while a message is playing will interrupt the current message and play the new message selection.
- The reflective nature of the screen makes it very easy to see outdoors.
- Because the screen is not backlit, it can be difficult to see in low light situations. Adjusting or reversing the screen's contrast may improve low light visibility.

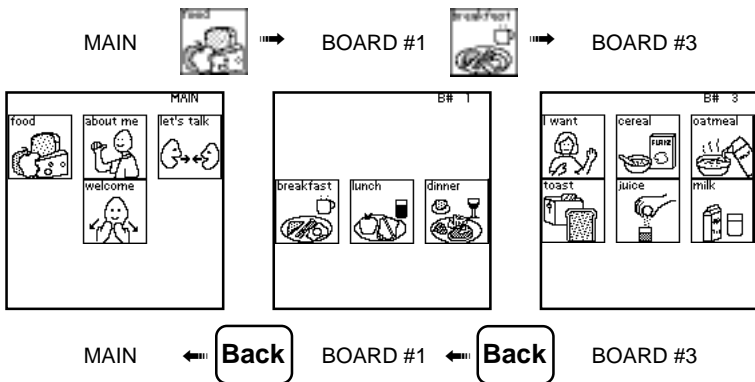
- **Important** Bright, direct sunlight may inhibit the HHV from registering a button selection. Shading the HHV with your shadow or the visor built into the carrying case will block enough sunlight to allow selections.
- **Important** Allowing moisture (water or saliva) to collect on the screen repeatedly or for a prolonged period of time may damage the touchscreen.
- Cleaning - wipe the screen with a soft cloth to remove any buildup of finger prints. Do not use harsh chemicals or abrasives.
- If the screen becomes broken or damaged, DO NOT USE THE DEVICE. Contact the Mayer-Johnson Co. immediately for service.

Navigating Your Communication Boards

The HHV allows you to navigate the boards dynamically and sequentially.

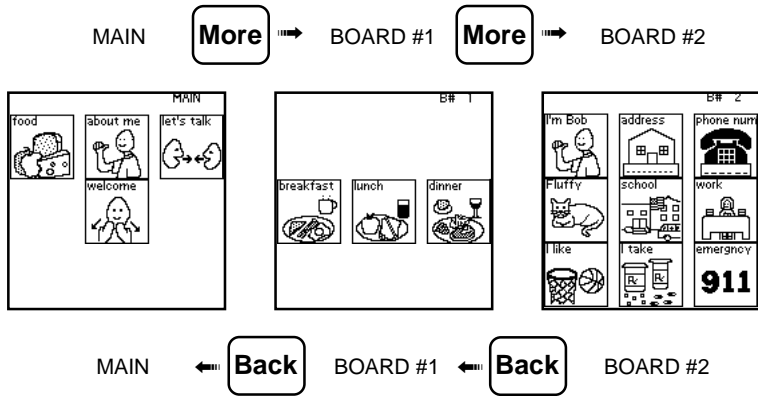
Dynamic Navigation

When creating boards on the HHV you can link an individual button on a board to a different, previously created board. This allows you to navigate the boards by making topic choices, working from general to specific. For example, the “food” button may link to a menu board with meal choices. Selecting “breakfast” may link to a board of breakfast choices.



Sequential Navigation

The **Back** and **More** keys allow you to step through the boards on the HHV. Holding either key down will auto-repeat the stepping.



The **More** key will always step to the next sequential board until the last available board is reached. The stepping process will wrap from the last available board to the MAIN board.

The **Back** key will step to the previous sequential board until you return to the MAIN board. The stepping process will wrap from the MAIN board to the last available board. If you have navigated through a series of boards via dynamic linking, the **Back** key will step back through the previous five boards accessed. Once you have gone back through five boards, the **Back** key will step sequentially backwards from the current board. This allows a user to back through board links to a previous topic choice.

Basic Controls

This section describes only the basic controls needed to use the HHV. Additional controls are covered in the *Tools and Controls* section.

Power Switch

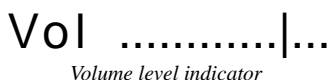
The power switch is located on the upper left side of the HHV. The switch is recessed into the side of the case to prevent accidentally switching off the power while using the device.

It is not necessary to switch off the power if the HHV will be idle for hours or days. The HHV can be set to automatically sleep when inactive for a period of time. Refer to **SleepTime** in the *Tools and Controls* section.

Caution Do not switch the power off while in the Design mode. This may cause you to lose work or corrupt your set of boards.

Volume Controls

The volume controls, on the TOOLS screen, are accessed by pressing the **Tools** key. Touch the **VolUp** button to increase the volume. Touch the **VolDown** button to decrease the volume. The volume level is shown in the status display.



The recording level for the microphone is controlled automatically and is not affected by this setting.

Screen Contrast

The recessed dial on the bottom right side of the HHV is the screen contrast control. Adjusting the screen contrast allows you to optimize the visibility of the screen in different lighting situations.

Important If the screen contrast is turned all the way down, the device may appear to be off or broken.

Design Key

The **Design** key is used to enter and exit the Design mode. The Design mode allows you to create new boards or modify existing boards. Refer to *Creating or Editing a Board* in the *Building Boards* section.

The Design mode may be disabled by locking the **Design** key. This allows you to keep users from making unwanted changes to the boards on the device. Refer to **LockDes** in the *Tools and Controls* section.

OK Key

The **OK** key is generally used in the Design mode or with the TOOLS screen. It is used to accept any changes made to a button, board, or control setting.

The **OK** key is also used in conjunction with the **Design** and **Tools** keys to access the Design mode and TOOLS screen when they are locked. Refer to **LockDes** and **LockTools** in the *Tools and Controls* section.

Cancel Key

The **Cancel** key is generally used only in the Design mode or with the TOOLS screen. It is used to cancel any changes made to the current screen.

- The **Cancel** key will also halt any message that is currently playing.

Tools Key

The **Tools** key gives you access to the TOOLS screen which contains a variety of useful device options and controls. Refer to the *Tools and Controls* section.

Access to the TOOLS screen may be restricted by locking the **Tools** key. This allows you to keep users from making unwanted setting changes. Refer to **LockTools** in the *Tools and Controls* section.

On-screen Help

The HHV has a full set of contextual Help screens that cover most of the functions, features, and controls on the device. The Help screens can be accessed from the TOOLS screen.

Contextual help on creating and editing boards is available by touching the **Editing** button on the initial HELP screen.

There is also a series of overview screens that briefly cover most of the information presented in this section of the manual. These screens can be accessed by touching the **Overview** button from the initial HELP screen.

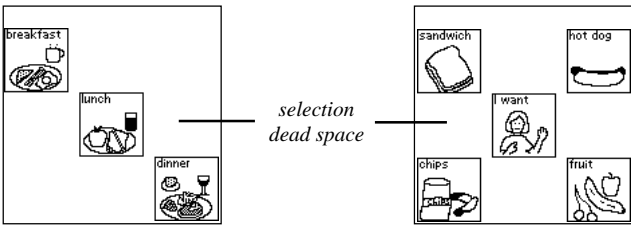
Building Boards

Good initial planning will save you a lot of time and help the user effectively communicate with the HHV. The first part of this section will cover design considerations and provide you with the organizational big picture. The next section will guide you through the steps of creating and/or editing boards.

Access Considerations

Setting Up Boards for Best Access

Due to the relatively small size of the pictures on the HHV (3/4" or 1.8 cm square), you may need to consider the user's ability to access these picture symbols on the screen. One way of easing targeting problems might be to place fewer buttons on each communication board. Each board on the HHV can contain between one and nine buttons. By using three buttons arranged diagonally or five buttons arranged in an "X" pattern, you can simplify the screen. These arrangements also allow for more selection dead space, assisting users who have a hard time successfully accessing selections from a board with nine buttons. You might want to start with a few buttons and then add buttons to the board as the user gets better at making selections on the touchscreen.



A three button board arrangement

A five button board arrangement

Setting the Selection Dwell on the Touchscreen

The selection dwell feature assist users who have a difficult time selecting buttons. It helps to minimize unwanted button selections by requiring the user to continuously hold his/her finger on a button for a set amount of time before the HHV registers a selection. This feature allows a user to drag his/her finger across the touchscreen without making unwanted selections.

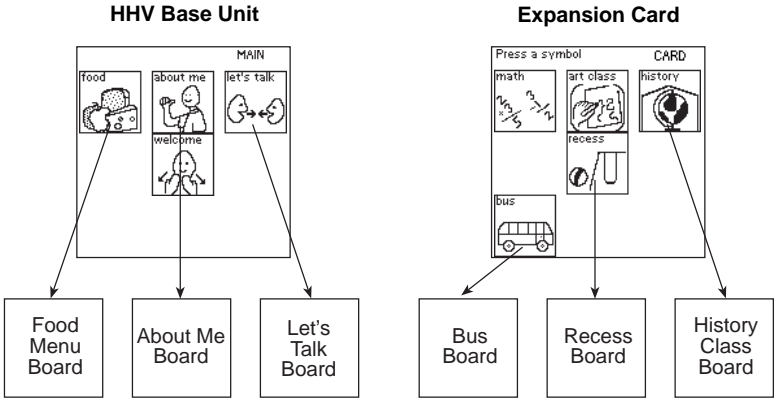
Caution The selection dwell feature can be confusing if you forget that it is enabled on the device. Refer to **TouchRate** in the *Tools and Controls* section.

Basic Board Organization

The HHV and Expansion Cards

The HHV base unit has a capacity of two minutes of recording time and 32 boards*. You may expand this capacity by inserting an expansion card which has a self-contained set of boards. Expansion cards come in different configurations and can add up to 96 boards and 8 minutes of recording time*. Just like the HHV base unit, each expansion card has a main board which allows you to access a separate set of boards stored on the card.

When you are preparing to design communication boards for the HHV, you should take into consideration the potential use of expansion cards. You may find it helpful to divide your boards into separate contexts. For example, you might place boards for use at home on the HHV base unit and boards for school or work on an expansion card. An advanced user may want multiple expansion cards, each one set up for different settings or topics. Refer to the *Expansion Cards* section for more information.



Possible content in the base unit context of "home"

Possible content in the expansion card context of "school"

* The capacity of the base unit and expansion cards may increase as technology allows.

Planning Your Boards

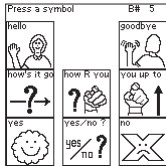
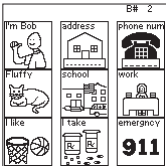
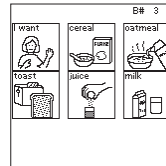
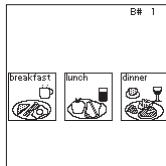
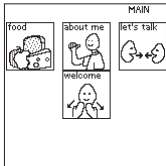
The most efficient way to design communication boards is to plan them on paper first. You might start by making a list of the user's major topics of communication. Major topics might include: food, needs, about me, social interaction, school, work, home, help, wants, etc. Once you have identified the major topics, start creating a list of the vocabulary, phrases, or sentences that the user will need within each major topic.

Once the content has been determined, you will need to decide how it will be organized on the HHV. Keep in mind the limitations on recording time, number of available boards, and choice of buttons per board. You may find it necessary to place some topics on the HHV base unit and others on an expansion card or cards.

- Depending on the ability of the user, you may overwhelm them by placing too much vocabulary on the device all at once. You will want to plan for the future when initially designing your boards, but may not want to program all of the boards at one time. Start with a realistic amount and introduce (program) new boards gradually.

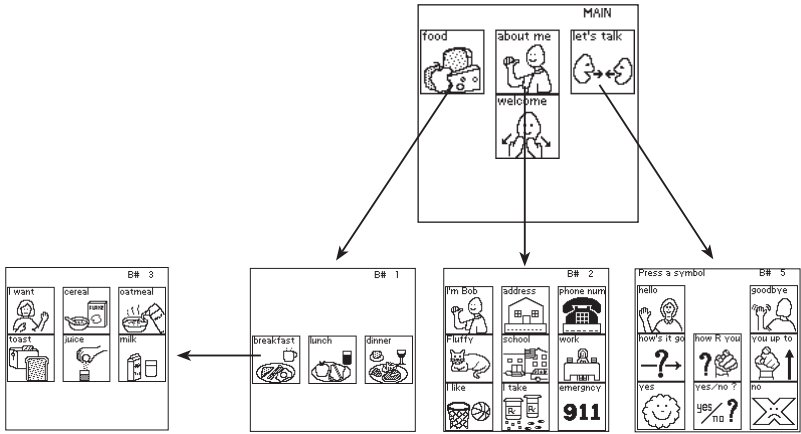
Creating Your Boards on the HHV

After planning the boards on paper, you are ready to begin creating boards on the HHV. Refer to *Creating or Editing a Board* in the *Building Boards* section. You will start by creating a Main board which will contain a button for each major communication topic you have identified. Next, create the boards for the content of each individual topic. Keeping all the boards for a single topic together simplifies the linking process.



First, create all your communication boards.

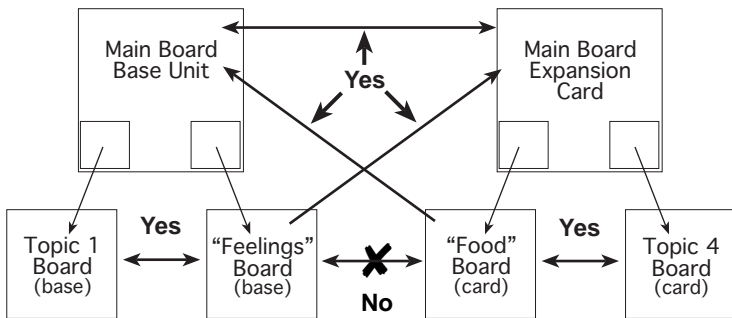
When you have created all the necessary boards, go back and link them together. Starting with the MAIN board, work through each topic until all the boards are linked together.



Next, link your boards together.

Linking the HHV Base Unit to Expansion Cards

It's possible to set up buttons that link from the HHV base unit to the currently installed expansion card or from the card to the base unit. This type of link can only be established with the main board of the card (CARD) or the MAIN board of the base unit. It is not possible to link from a button on the base unit to any board on an expansion card other than the main board (CARD), and vice versa. This means, for example, that if a user wanted to navigate from a "Feelings" board on the HHV base unit to a "Food" board on an expansion card, the user would need to select a button which linked to the expansion card's main board (CARD), then navigate from there to the appropriate "Food" board.



You can only establish links between an expansion card and the base unit by first going through the respective main boards.

Creating or Editing a Board

Design Mode

The Design mode on the HHV allows you to create a new board or edit an existing board. Pressing the **Design** key toggles the Design mode on and off. When you are in the Design mode an indicator (**Design**) will appear in the status display on the current screen as shown below.

You must be in the Design mode to access the **NewBoard** button on the TOOLS screen. This buttons will appear greyed out if you are not currently in the Design mode.

- The HHV will automatically exit the Design mode if the battery level drops too low. A warning banner will appear on the screen if this happens.



Shown in Design mode

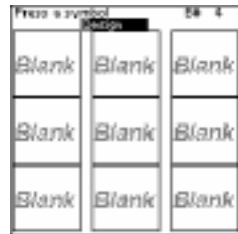
Caution Do not switch the power off while in the Design mode. This may cause you to lose work or corrupt your set of boards.

Creating a New Board

On the HHV base unit or expansion card, you can create up to a maximum number of boards. Once a board is created, its contents may be modified or deleted, but the board itself may never be deleted. When you have created the number of boards allowed, you will have to modify an existing board to add a new communication topic.

To create a new board:

1. Press the **Design** key to enter the Design mode.
 2. Press the **Tools** key to view the TOOLS screen.
 3. Touch the **NewBoard** button. A new, blank board will appear on the screen.
- The **NewBoard** button is greyed out and unselectable if you are not in the Design mode.



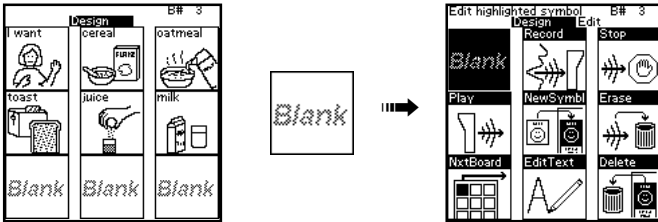
Assigning a Picture Symbol to a Button

You must assign a picture symbol to a button on a board if you are planning to have that button play a message or link to another board. Buttons that are not assigned a picture symbol will not be visible on the board and cannot be assigned actions.

The HHV comes with a library of 2,400 Picture Communication Symbols® (PCS). When assigning a picture symbol to a button you can browse through the symbol library to locate the appropriate selection.

To assign a picture symbol to a button:

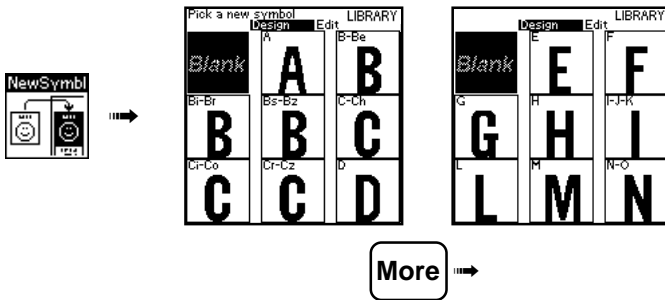
1. Press the **Design** key to enter the Design mode.
2. Select the button you want to edit. That button's current picture symbol, or the word "Blank," will appear in reverse contrast at the upper left corner of the Design Edit screen.



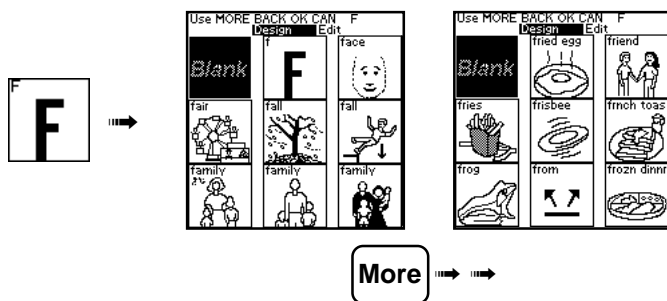
3. Touch the **NewSymbol** button. The first library index screen will appear.

The libraries can be indexed either by alphabet or category. The last library index screen gives you the option of switching the indexing method.

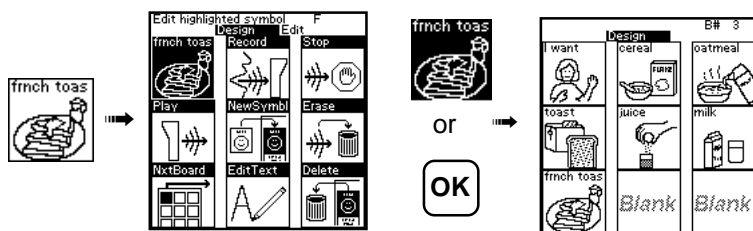
4. Use the **More** and **Back** keys to scroll forward and backward through the library index screens.



5. Touch a library index button to view the related PCS.



6. Scroll through the available screens of PCS. Touch the symbol you want assigned to the button. You will be returned to the Design Edit screen and the new picture symbol will appear in reverse contrast.
7. If you are finished editing the button, press the **OK** key or touch the reverse contrast picture symbol. The new symbol will appear on the button.



- You can view the PCS libraries or change the default library indexing method at any time by touching the **Libraries** button on the TOOLS screen.

Recording a Button Message

Recording time on the HHV is dynamically allocated to each button, i.e. each button does not have a set limit on recording time. All available recording time can be used on a single button or spread over many different buttons.

The HHV has a built-in microphone on the bottom left side of the unit that is used to make most recordings. There is also the optional External Recording Cable that can be plugged into the external audio port on the upper left side of the HHV. This cable allows for recording directly from external sources such as computers, tape recorders, CD players, etc. Refer to *Using the External Audio Port* in the *Accessories* section.

- Recordings made with the built-in microphone are clearer if you remove the HHV from the carrying case.

To record a message on a button:

1. Press the **Design** key to enter the Design mode.
 2. Select the button you want to edit.
 3. Touch the **Record** button and wait for the **Record** indicator to appear in the status display.
- If you start talking before the **Record** indicator appears the first part of your message may not be recorded.
4. Speak in a natural voice holding the HHV 1 - 2 feet from your mouth. Moving the device closer may cause your recording to sound distorted.
 5. Pressing any key or touching any button will stop the recording process. Various keys and buttons perform actions in addition to stopping the recording process. Refer to the table below for the most useful options.



Button or Key	Resulting Actions
OK key or reversed button	stops, saves message, leaves Design Edit screen - useful for quick recordings
Play button	stops, saves message, plays it back, stays on Design Edit screen
Stop button	stops, saves message, stays on Design Edit screen
Record button	Cancels the current recording and starts a new recording
Cancel button	stops, no message saved, leaves Design Edit screen

Linking a Button to Another Board

You can move among boards on the HHV by creating links between buttons and related boards. To a limited degree, links can also be created between the HHV base unit and an expansion card. Refer to the *Expansion Cards* section for directions on these types of links.

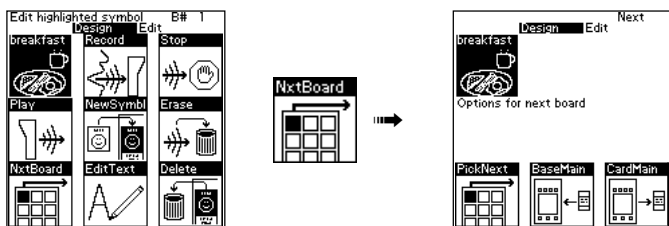
- You can only link a button to an existing board.

To link a button to another board on the base unit or the expansion card:

1. Press the **Design** key to enter the Design mode.
2. Select the button you want to edit.
3. Touch the **NxtBoard** button. A screen with additional linking choices will appear.

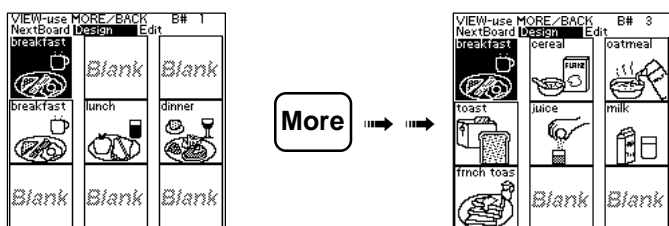
continued

4. Touch the **PickNext** button. This tells the HHV you want to link to a board in the current context (base unit or expansion card).



Linking the “breakfast” button to a breakfast choices board.

5. The current board or the previously linked board will appear on the screen with the current symbol you are editing shown in the upper left corner. Use the **More** or **Back** keys to step through the available boards until you have located the desired board for the link.



Stepping through the available boards to locate the desired board for the link.

6. Press the **OK** key or touch the reverse contrast symbol of the button you are editing to save the link.

Pressing the **Cancel** key will return you to the button editing screen without saving a board link.

- When a button is linked to another board, a small arrow will appear in the lower right corner of that button. These link indicators only appear in the Design mode.



Linked button

To remove a button’s link to another board:

Simply link the button to the board that contains the button itself.

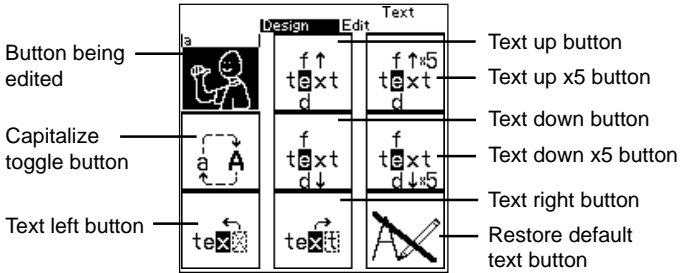
To link a button to the MAIN board of the HHV base unit or the main board (CARD) of the expansion card:

Refer to the *Switching Between the Base Unit and an Expansion Card* in the *Expansion Cards* section.

Creating Custom Symbol Text

On the HHV you have the option of replacing the default text that appears above a picture symbol with custom text that you enter. A labeled picture of the text editing screen appears below.

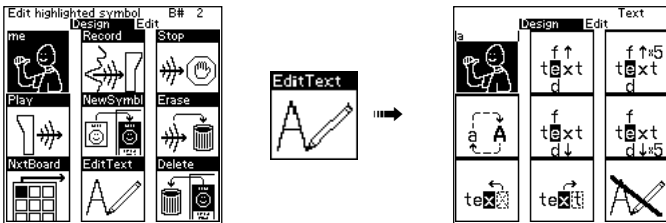
- You can create up to 250 custom text items in the HHV base unit and each expansion card.
- Custom text can consist of up to eight characters including spaces.



To edit the symbol text:

1. Press the **Design** key to enter the Design mode.
2. Select the button you want to edit.
3. Touch the **EditText** button. The Text screen will appear. All of the text editing tools are on this screen.

The picture symbol, whose text you are editing, will appear in reverse contrast at the upper left of the screen. An “a” will appear above the picture symbol. This is the first letter you will edit.



Changing the default text “me” to the custom text “I’m Bob.”

continued

4. Touch the “text up” button or “text down” button to change the “a” to next letter or character. The “text up x5” button and “text down x5” button will step you through the available characters five at a time.



Touching the “capitalize toggle” button will switch the current letter from lower-case to upper-case, or vice versa.

5. After locating the correct letter, touch the “text right” button. This will place an “a” in the next position.



- If you need to add a space to your custom text, touch the “text down” button. The space is the last character in the set of available characters. The “text down” button and “text down x5” button will wrap backwards through the character set.
- If you want to edit a previous letter touch the “text left” button until you reach that letter. After making the change, touching the “text right” button repeatedly will restore any previously existing characters.

6. Repeat steps 4 and 5 until you have spelled out your custom text.



Completed text

- Custom symbol text can only consist of 8 characters.

7. When finished editing the text, press the **OK** key or touch the reverse contrast picture symbol. This will return you to the button Design Edit screen.

- If you want to restore the default symbol text, press the **EditText** button, then touch the “restore default text” button. The original text will appear.



“Restore default text” button

Available Character Set

a b c d e f g h i j k l m n o p q r s t u v w x y z 0 1 2 3 4 5 6 7
 8 9 0 ' . ! ? ; : # : \$ £ ¥ % / & () + - à á â ã ä å æ ç è é ê ë ì í
 î ï ñ ò ó ô õ ö ø ß ù ú û ü ý ÿ {space}

Foreign Languages

The HHV can be set up to support users who want to work in other languages. The default text for the picture symbols can be turned off, allowing you to define custom symbol text, in the appropriate language, for each picture symbol used on a board.

Important At this time, there is no way to make permanent changes to the text in the libraries. For foreign languages, you must create a custom text label for each picture symbol used in your communication boards.

- You can only create 250 custom text items in the HHV base unit and in each expansion card.
- The default text will always be visible when viewing libraries or editing a button.

To hide the default picture symbol text:

1. Press the **Tools** key.
2. On the TOOLS screen, touch the **Controls** button.
3. On the CNTRLS screen, touch the **On/Off** button. This will toggle the default symbol text on and off.

Refer to **On/Off** in the *Tools and Controls* section.

Expansion Cards

Overview

Expansion cards allow you to extend the recording time and number of communication boards available to the user beyond the limitations of the HHV base unit. An expansion card is inserted into the base unit, but acts as a separate entity with its own main board and set of communication boards. Expansion cards are available with different capacities*:

- 4 minutes of recording time and 48 boards
- 8 minutes of recording time and 96 boards

A user with a large vocabulary can use multiple expansion cards to cover a variety of topics. For example, a user might have separate cards for use at work, home, school, or even for telephone conversations. No matter what card is inserted, the boards and vocabulary on the base unit are always accessible.

Expansion cards are totally self-contained. The memory on the cards is completely nonvolatile. When the card is removed from the base unit none of its content, boards, or messages will be lost. The cards do not contain batteries that need to be replaced.

Inserting an Expansion Card

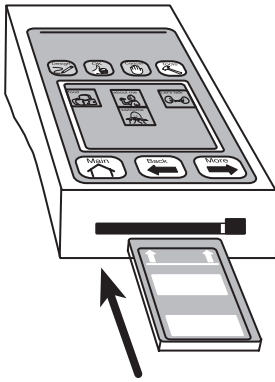
The expansion cards are inserted into the slot on the bottom of the HHV. It is important that you only use Hand Held Voice expansion cards with the HHV.

Important Standard PC cards and cards for digital cameras are not compatible with the HHV.

To insert an expansion card:

1. Hold the expansion card with the label up.
2. Insert the end of the card marked with two white arrows into the expansion card slot on the bottom of the HHV.
 - If the expansion card does not slide freely into the card slot, do not force the card. The card may not be aligned properly.
3. As the card is inserted, the eject button will extend to the right of the card until it is flush with the end of the card. The expansion card will extend about 1/4 inch from the bottom of the HHV.

* The capacity of the base unit and expansion cards may increase as technology allows.



Insert the card with the arrows first.

The eject button will extend until flush with the end of the card.

When the expansion card is fully inserted in the HHV base unit, you will have access to any boards created on the card.

- The main board (CARD) on the expansion card will not automatically appear on the screen of the HHV. You must switch to the card by selecting a button linked to the main board (CARD) of the card, or by using the **CardBase** button on the TOOLS screen.

Switching Between the Base Unit and an Expansion Card

When an expansion card is inserted in the HHV base unit, the user has access to the communication boards on either the base unit or the card. If you are on the base unit and want to switch to the card (or vice versa), you will need to select a button that is linked to the card's main board (CARD) or select the **CardBase** button on the TOOLS screen.

Switching With a Button Link

For most users of the HHV, it will be easier to switch between the base unit and an expansion card using a button link. This means that you will make a button on a base unit board that links to the main board (CARD) of the card (or vice versa). When the user selects that button, the main board (CARD) of the card will appear on the screen.

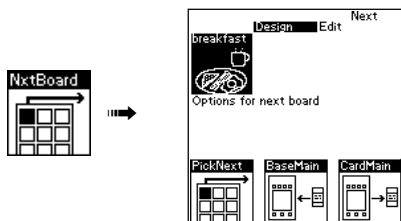
To make a button link to the main board of either the expansion card or the base unit:

1. Press the **Design** key to enter the Design mode.
2. Select the button you want to edit.
3. Assign a picture to the button. [There are special pictures for depicting a link to the main board on either the base unit or the card. These pictures may be found in the **Other** library category on the last alphabetical index screen.



4. Touch the **NxtBoard** button. A screen with additional linking choices will appear.
5. Touch the **BaseMain** button to automatically create a link to the MAIN board on the base unit.

Touch the **CardMain** button to automatically create a link to the main board (CARD) on the currently installed expansion card.



Choosing the type of button link

6. You will be returned to the Design Edit screen where you may continue editing the button. Press the **OK** key or the reverse contrast picture symbol when you have finished editing the button.
 - If a button is linked to the MAIN board on the base unit, a small “B” will appear in the lower right corner of that button. If a button is linked to the main board on the expansion card, a small “C” will appear. These link indicators only appear in the Design mode.
 - If no card is installed when the user activates a button linked to a card’s main board, the button will link to the MAIN board on the base unit.



Switching with the CardBase Button

If the user does not understand dynamic screens, you might choose to use the **CardBase** button as your means of switching between the base unit and the expansion card. In this case, a parent or teacher would probably be doing the switch for the student.

To switch from the base unit to a card (or vice versa) using the **CardBase** button:

1. Press the **Tools** key to access the TOOLS screen.
2. Touch the **CardBase** button to switch from the base unit to the MAIN board on an expansion card (or vice versa). The message “Expansion Card Selected” or “Base Unit Selected” will appear in the status display informing you which context is now selected.
3. Press the **OK** or **Main** key to go to the main board you have just specified.

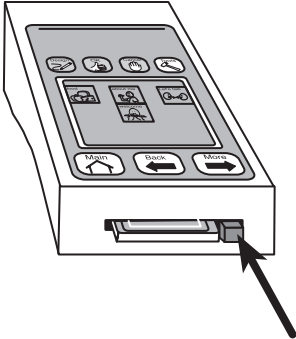
Removing an Expansion Card

Expansion cards are designed to be inserted and removed as required. They must be removed in the proper fashion to avoid damaging both the card and the HHV base unit.

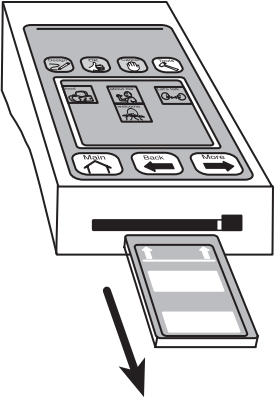
- Never remove an expansion card if you are editing the content (in the Design mode) of the card itself. You may lose changes you have made or possibly corrupt the content of the card.
- Do not remove an expansion card while a message is playing on the HHV.
- Do not simply pull on an expansion card to remove it from the HHV base unit! Follow the instructions below. It is not necessary to switch the power off before ejecting or inserting an expansion card.

To remove an expansion card:

1. Press the eject button extending to the right of the card. This will free the card from its socket.
 2. Grasp the sides of the expansion card and slide it straight out of the card slot.
- Expansion cards should be handled carefully and stored in a safe place.



Press the eject button



Slide the card straight out of the slot

Tools and Controls

Tools Screen

Pressing the **Tools** key on the HHV gives you access to the TOOLS screen. This screen contains a variety of buttons that allow you to change various device settings. The TOOLS screen can be locked to restrict user access to these settings. Refer to **LockTools** under *Controls (CNTRL) Screen* later in this section.

This section of the guide will explain the function of each button on the TOOLS screen.



Battery Power Indicator

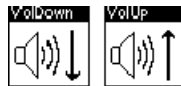
The battery power indicator automatically appears in the status display on the TOOLS screen whenever you press the **Tools** key.

Battery |||||.....

Battery power indicator

When the battery power level gets very low the message “Battery LOW!” will appear in the status display or a warning banner will appear on the screen. Turn off the HHV and replace the batteries before using further.

VolDown & VolUp



Touch the **VolUp** or **VolDown** buttons to increase or decrease the volume. Holding your finger on a volume button will cause it to auto-repeat, increasing or decreasing the volume. The volume level is shown in the status display on the TOOLS screen and is visible only after touching one of the volume buttons.

Vol|...

Volume level indicator

The volume setting is preserved when the HHV is switched off.

The recording level for the microphone is controlled automatically and is not affected by this setting.

Controls



Touch the **Controls** button to gain access to the CNTRLS screen. This screen contains more advanced device settings. Refer to *Controls (CNTRLS) Screen* later in this section.

NewBoard



➤ You must be in the Design mode to use this button. Otherwise, the button will appear grayed out.

Touching the **NewBoard** button will create a new (blank) board. New boards will always be created after the last currently available board on the device. You can continue to create new boards until you reach the total number of allowed boards within the base unit or current expansion card.

- HHV base unit - 32 board maximum*
- 4 minute expansion card - 48 board maximum*
- 8 minute expansion card - 96 board maximum*

* The capacity of the base unit and expansion cards may increase as technology allows.

Libraries



The HHV contains about 2,400 Picture Communication Symbols® (PCS). The PCS libraries are indexed both by alphabet and category to assist you in quickly locating a desired picture symbol.

Touch the **Libraries** button to view the available PCS libraries or set your preference for the library indexing. The first screen that appears after touching the **Libraries** button lets you select your preference for how the library of PCS will be indexed: Alphabet or Category. Touching either choice will set the indexing preference and show you the first screen of choices. You may now use the **More** and **Back** keys to browse the library of available PCS.

➤ You can also change the library indexing by selecting the other indexing choice that appears as a selection option on the last library index screen.

Sorry, at this time there is no option to add picture symbols to the library of available PCS on the HHV.

Help



Touch the **Help** button to view the available HELP screens. The first HELP screen presents a choice of the various Help topics. Many of the Help topics contain multiple screens that are arranged to simulate the actual arrangement of the Design Edit, TOOLS, and CNTRLs screens. To avoid any possible confusion when you are in the HELP screens, all the button choices will have a small question mark in the lower left corner.

To learn how to create and edit buttons on a communication board, touch the **Editing** button on the HELP screen.

To get a quick general overview of the HHV and its controls, touch the **Overview** button on the HELP screen.

CardBase



The **CardBase** button allows you to switch from the current context to the main board on the other context. A context is the set of communication boards contained on the HHV base unit or on an expansion card. For example, if you are using boards on the base unit, touching the **CardBase** button on the TOOLS screen and then pressing the **Main** key will take you to the main board (CARD) of the currently installed expansion card. If no expansion card is installed, no action will take place.

Each time you touch the **CardBase** button the message “Expansion Card Selected” or “Base Unit Selected” will appear in the status display, indicating which context of boards you have now selected to use.

- If you are in the Design mode and use the **CardBase** button.
- You can also switch between contexts by linking a button on one of the communication boards to the main board in the other context (base or currently installed expansion card). Refer to the *Expansion Cards* section.

Info



Touch the **Info** button to display important information about the current context you are working in, expansion card or base unit. The INFO screen will display information on the software version, actual resources currently used, and total resource capacity.

INFO		
The Mayer-Johnson <i>HandHeld Voice</i> ® by Ability Research, Inc.		
Software 26	Symbols 26	
(C) Copyright 1998 All Rights Reserved		
Base	Used	Total
Messages	5	100
Time (Sec)	7	120
Boards	7	32
Exp Card	Used	Total
Messages		
Time (Sec)		
Boards		

SleepNow



Touch the **SleepNow** button to put the HHV to sleep. While sleeping, the HHV screen will clear and the unit will expend very minimal energy.

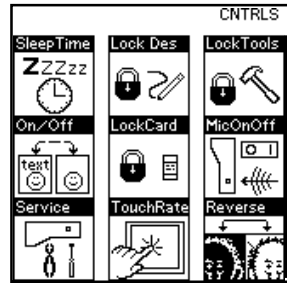
To wake the HHV from sleeping, touch any of the white keys (**Tools, Main, Back, More**). The board you were last working on will reappear on the screen when the HHV returns to normal operation.

You can also set the HHV to sleep automatically after a set period of inactivity. Refer to **SleepTime** under *Controls (CNTRLS) Screen* later in this section.

- It is strongly recommended that you set an automatic sleep time for the HHV because this will greatly increase your battery life.

Controls (CNTRLS) Screen

Touching the **Controls** button on the TOOLS screen gives you access to the CNTRLS screen. This screen contains a variety of buttons that allow you to change advanced device settings.



SleepTime



Touch the **SleepTime** button to set the HHV to automatically sleep after a set period of inactivity. Each time you touch the **SleepTime** button you step to the next increment for the inactivity time. The new sleep time is shown in the status display on the CNTRLS screen and is visible only after touching the **SleepTime** button.

The available sleep time durations are: 30 seconds, 1 minute, 1.5 minutes, 2 minutes, 2.5 minutes, 3 minutes and “Never go to Sleep.”

To wake the HHV from sleeping, touch any of the white keys (**Tools, Main, Back, More**).

- Using the automatic sleep feature will greatly increase your battery life. If waking the HHV is not a problem for the user, you should use the shortest comfortable inactivity time for the automatic sleep mode.

LockDes



Touch the **LockDes** button to lock and unlock the **Design** key and Design mode. Locking the **Design** key prevents others from inadvertently making unwanted changes to the boards on the device.

When the Design mode is locked, pressing the **Design** key will simply flash the message “Design is Locked!” in the status display.

To gain access to the Design mode when **DesLock** is enabled, press and hold the **Design** key and simultaneously press the **OK** key. Upon exiting the Design mode, the Design mode will remain locked.

- It is recommended that you leave the **DesLock** enabled on the HHV during normal use to prevent inadvertently entering the Design mode.

LockTools



Touch the **LockTools** button to lock and unlock the **Tools** key. Locking the **Tools** key prevents others from inadvertently accessing the TOOLS screen and making unwanted setting changes on the HHV.

When the **Tools** key is locked, pressing the **Tools** key will simply flash the message “Tools are Locked!” in the status display.

To gain access to the TOOLS screen when the **Tools** key is locked, press and hold the **Tools** key and simultaneously press the **OK** key. Upon exiting the TOOLS screen, the **Tools** key will remain locked.

On/Off



Touch the **On/Off** button to turn on and off the default text above the picture symbols.

- The default text will always be visible when viewing libraries or editing a button.

Turning on and off the default text does not hide any custom text that you have defined for a particular picture symbol. This allows you to use the HHV with users who do not speak English. The **On/Off** button allows you to turn off the English default text labels so that you can display custom text in the appropriate language. Refer to *Creating Custom Symbol Text* in the *Building Boards* section.

LockCard



The **LockCard** button provides access to a screen where you can lock and unlock an expansion card preventing others from making unwanted changes to the boards on the card.

If you press the **Design** key while using boards on a locked expansion card, the message “Card is write protected!” will appear in the status display.

Once locked, an expansion card will remain locked even when removed from the HHV. You must unlock the expansion card using the **LockCard** button before you can make any changes to the contents of the card.

MicOnOff



Touch the **MicOnOff** button to disable or enable the built-in microphone on the lower left side of the HHV. This feature is only to be used in conjunction with the optional External Recording Cable.

The External Recording Cable allows you to record the output from a computer, stereo, or tape recorder. External recordings are usually clearer and louder than those made with the built-in microphone. Refer to *Recording from an External Source* in the *Accessories* section.

When recording output from another source, you will use the **MicOnOff** button to disable the built-in microphone so that you do not record any external noise it might pick up.

Important Be sure to enable the built-in microphone when you are finished using the External Recording Cable. Leaving the built-in microphone disabled may cause confusion for others in the future.

Service



The **Service** button provides access to special test screens that are for use only with technical support assistance.

Caution Do not attempt to use any of the Service screens! Using these screens can result in the loss of all boards and messages on the HHV!

TouchRate



Touch the **TouchRate** button to change the minimum time a button must be held (dwell) before the HHV will register a button selection. Setting a longer selection dwell time can be very beneficial to users who are unsteady and are prone to making incorrect button selections. Setting a longer selection dwell time allows a user to drag his/her finger across the touchscreen until he/she locates and holds on the desired button.

The available button acceptance dwell times are: Fast Touch, Medium Fast Touch, Medium Slow Touch, and Slow Touch.

When a dwell time other than Fast Touch is set, the button will highlight by reverse contrast when first touched. If the button is held until the dwell time is met, it will flash once quickly to indicate it has been

selected. If the button is not held for the appropriate amount of time, it will return to normal and no action will be performed.

Each time you touch the **TouchRate** button you step to the next increment for the dwell time. The new dwell time is shown in the status display and is visible only after touching the **TouchRate** button.

- The button acceptance dwell time is enabled when accessing the Design Edit and TOOLS screens. You may want to reset the dwell time to Fast Touch before doing any amount of work in the Design mode.

The **TouchRate** feature only affects the on-screen buttons and not the blue or white keys on the surface of the HHV.

Caution The selection dwell feature can be confusing if you forget it is enabled on the device. The HHV may appear as if it is not responding if you do not hold your finger on the button for the set dwell time.

Reverse



Touch the **Reverse** button to toggle the screen contrast from black outlines on a light gray background to light gray outlines on a black background. This feature can be beneficial to users who may have a difficult time viewing the HHV screen in the normal screen contrast mode.

Accessories

Attaching the Mounting Plate (optional)

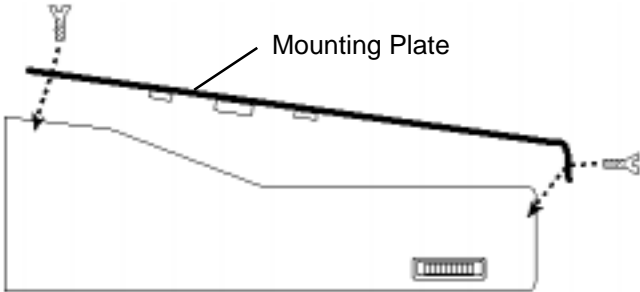
The optional mounting plate can be attached to the HHV thus allowing the device to be secured to a stationary or wheelchair mount. The mounting plate is compatible with :

- 1/4-20 screw attachments (Daedalus Technologies, Inc. and photographic mounts)
- triangular 4-40 screw attachments (Daedalus Technologies, Inc. and AbleNet switch mounts)

To attach the mounting plate:

1. Using a Phillips screwdriver, remove and save the four screws from the bottom and end of the HHV.
2. Place the mounting plate on the bottom of the HHV. The flat surface of the plate should face out.
3. Loosely thread all four screws in place before tightening them down. Do not excessively tighten the screws.

Warning Make sure that your mounting plate and mounting arm is secure! The HHV weighs 1.5 pounds and could cause an injury if it were to fall due to improper mounting.



Attaching the optional mounting plate.

Using the External Audio Port

The HHV has an external audio port that can be used to make recordings from an external source or to play messages through an external speaker. Both applications require the use of special optional cables that plug into the external audio port.

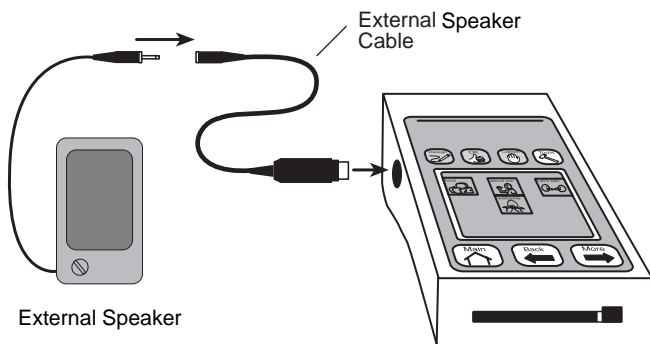
Connecting External Speakers

The optional External Speaker Cable allows you to connect external amplified speakers to the HHV.

- Your external speakers must be able to plug into a 1/8" mini jack.

To connect external speakers, simply plug the External Speaker Cable into the external audio port on the HHV and your speakers into the other end as shown below.

All messages will play from the built-in speaker as well as the external speaker. The **VolUp** and **VolDown** buttons will change the volume level of both the built-in and external speakers.



Recording from an External Source

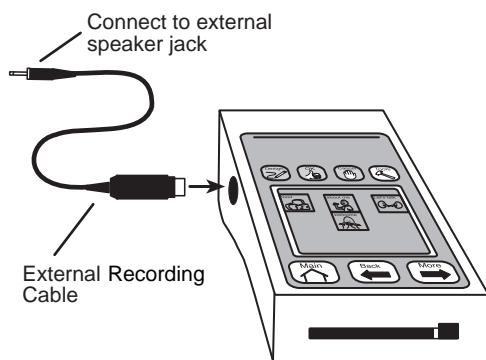
The optional External Recording Cable allows you to make button recordings from external sources, such as computers, tape recorders, CD players, etc.

- The recording source must have a 1/8" (3.5mm) headphone jack or "line out" connection.
- It is recommended that you disable the HHV built-in microphone before recording from an external source. Refer to **On/Off** in the *Tools and Controls* section.

continued

To make a recording from an external source:

1. Plug in the External Recording Cable as shown below. Initially, you will want to use a low volume level on the external device and potentially increase it if necessary. If the output volume is too high on the external device, the recording on the HHV will sound distorted.
2. Touch the **Design** key and select the button you want to edit.
3. Touch the **Record** button on the HHV and play the sound from the external source. You will want to time it so that the sound from the external source starts just after the **Record** indicator appears in the status display. It may take a few tries to get the timing right.
 - If your sound starts before the **Record** indicator appears, the first part of the sound may not be recorded.
4. Press the **Stop** button when your recording is complete. Other keys and buttons can stop the recording process and will perform additional actions. Refer to *Recording a Button Message* in the *Building Boards* section.



Troubleshooting

If you encounter a problem while using the HHV, check this section for help before calling for technical support.

Frequently Asked Questions

The power switch is in the On position but I don't see a picture on the screen.

- (a) Make sure the device is not sleeping. Press one of the white keys or simply turn the device Off and On again.
- (b) Check to make sure that the screen contrast is not turned all the way down. The screen contrast is adjusted by using the dial on the bottom right side of the HHV. It is often confused with a volume control dial.
- (c) Check the batteries that are installed in the device: (1) Do they still have sufficient charge? (2) Are they installed in the battery tray correctly?

When I touch the buttons, they highlight but they don't seem to activate.

- (a) The HHV is equipped with a selection dwell feature that requires you to hold your finger on a button for a set amount of time before it will activate. You need to continue holding your finger on the button to make it activate. To change or disable the selection dwell: (1) Press the **Tools** key. (2) Touch the **Controls** button. (3) Touch the **TouchRate** button. Each time you touch this button it will cycle through the available dwell times. Refer to **TouchRate** in the *Tools and Controls* section.
- (b) Make sure that the volume is not turned all the way down. Refer to **VolDown & VolUp** in the *Tools and Controls* section.

Why does the screen intermittently go blank?

The HHV is equipped with an automatic sleep feature. When the HHV is left unused for a set period of time it automatically goes into sleep mode. To adjust the automatic sleep time: (1) Press the **Tools** key. (2) Touch the **Controls** button. (3) Touch the **SleepTime** button. Each time you touch the button you will cycle through the available sleep time durations. Refer to **SleepTime** in the *Tools and Controls* section.

The colors on the screen look reversed. How do I get the normal screen back?

The screen on the HHV can be set to show reverse contrast. To change the screen contrast: (1) Press the **Tools** key. (2) Touch the **Controls** button. (3) Touch the **Reverse** button. Refer to **Reverse** in the *Tools and Controls* section.

I can't get into the Tools screen or the Design mode.

Both the **Tools** and **Design** keys can be locked to restrict programming access on the HHV. To gain access to the **TOOLS** screen, press the **Tools** key while simultaneously pressing the **OK** key. To gain access to the Design mode, press the **Design** key while simultaneously pressing the **OK** key. To completely unlock the **Design** key or **Tools** key, refer to **LockDes** or **LockTools** in the *Tools and Controls* section.

I'm on the Design Edit screen, but I can't figure out how to make a new communication board.

The choices on the Design Edit screen only apply to editing the content of a button. To create a new board: (1) Press the **Tools** key. (2) Touch the **NewBoard** button. [Note: This button will appear grayed out unless you are in the Design mode.] Refer to **NewBoard** in the *Tools and Controls* section.

I can't figure out how to delete a board that I created.

You cannot delete a board or change a board's sequential position once it has been created. You can only edit the content of a previously created board.

I can't create a new board; the status display keeps flashing the message "No more room for boards."

The base unit and each expansion card have a specified number of boards that can be created. Once you have created the specified number of boards, new communication boards can only be created by changing the content of an existing board. You can check how many boards you have created by pressing the **Tools** key and touching the **Info** button. Refer to **Info** in the *Tools and Controls* section.

I want to change the volume, but the volume control dial on the side of the device is not working.

The dial on the bottom right side of the HHV is the screen contrast control not the volume control. The volume can be changed by using the **VolUp** and **VolDown** buttons on the TOOLS screen. Refer to **VolDown & VolUp** in the *Tools and Controls* section.

When I try to record a message nothing gets recorded.

- (a) Make sure that the built-in microphone has not been disabled. (1) Press the **Tools** key. (2) Touch the **Controls** button. (3) Touch the **MicOnOff** button. Make sure the message “Microphone ON (normal)” appears in the status display. Refer to **MicOnOff** in the *Tools and Controls* section.
- (b) Make sure that the HHV is actually set to record a message. You are ready to start recording your message when the record indicator (**Record**) appears in the status display. Refer to *Recording a Button Message* in the *Tools and Controls* section.
- (c) Make sure that you are not stopping the recording process using the **Cancel** key. This will terminate the recording process without saving a message.

Why do my recorded messages sound very quiet, really strange, or slightly distorted?

- (a) Check the battery power level by pressing the **Tools** key. When the batteries are low the volume may sound significantly reduced or you may hear strange sounds when attempting to play a message. Refer to *Battery Power Indicator* in the *Tools and Controls* section.
- (b) Recording quality can vary depending on your proximity to the built-in microphone or whether you are recording with the carrying case on or off. Be sure that when you hold the HHV your finger is not covering the microphone. You will get the best recording quality if you remove the carrying case and hold the HHV 1 - 2 feet from your mouth. Speak at your normal volume level.

When I turn the text off, not all of the text is being hidden.

Turning off the picture symbol text on the HHV only hides the default text associated with the symbol. Any custom text that you have defined will still be visible. Refer to **OnOff** in the *Tools and Controls* section.

When I am trying to record a message the device stops recording before I am finished.

This is most likely caused by a low battery situation. At this point you may have seen a “Battery LOW:” message on the screen. You should check the battery level by pressing the **TOOLS** key and looking in the status display. If the batteries are low, before continuing to use the device: (1) Make sure you are not in the Design mode. (2) Turn off the power. (3) Replace the batteries.

I have inserted an expansion card, but I can't get access to the boards on the card.

- (a) You can switch from the boards on the base unit to the boards on an expansion card by using the **CardBase** button on the **TOOLS** screen. Each time you press the **CardBase** button a message will appear in the status display telling you which set of boards you are now using. Refer to **CardBase** in the *Tools and Controls* section.
- (b) If you touch the **CardBase** button and the message “No Expansion Card Present” appears, follow the directions under *Inserting an Expansion Card* in the *Expansion Cards* section. If you have followed all directions, please call for technical support.
- (c) Make sure you are using a Hand Held Voice expansion card. Standard PC cards from laptop computers and digital cameras are not compatible with the HHV.

Technical Support

If you cannot solve your problem by referring to the *Troubleshooting* section above, please call:

Mayer-Johnson Co.
Technical Support
(619) 550-0084

Technical support is available Monday through Friday from 8 a.m. to 4:30 p.m. (Pacific Time).

Technical questions can also be posted from the Mayer-Johnson Co. web site at www.mayer-johnson.com or e-mailed directly to mayerj@mayer-johnson.com

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This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an output circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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