Instruction Manual

ALPHA210

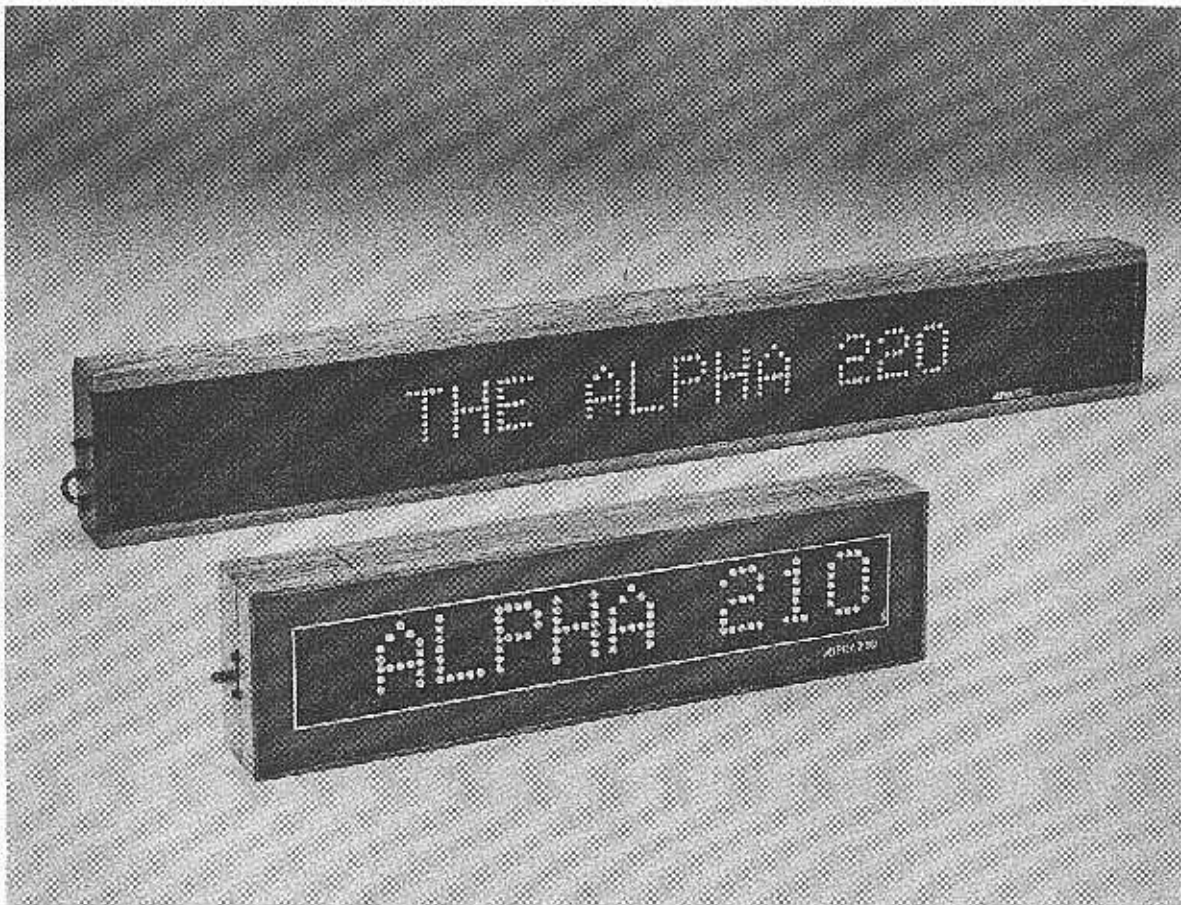# ALPHA220

TABLE OF CONTENTS

UNPACKING
If you haven't already done so carefully open the box and remove the contents. The following items are included:

ALPHA 210

1 - Alpha 210 Programmable Message Display   1 - Alpha 210/220 Instruction Manual
1 - Alpha 2100 Keyboard   4 - Alpha 210 Mounting Feet
1 - Alpha 2100 AC Adaptor   1 - Alpha Warranty Card
2 - Alpha 210 Mounting Clips

ALPHA 220

1 - Alpha 220 Programmable Message Display   1 - Alpha 210/220 Instruction Manual
1 - Alpha 2100 Keyboard   1 - Alpha Warranty Card
2 - Alpha 220 Mounting Eyehooks   6 - Alpha 220 Mounting Feet

The keyboard is packaged in the styrofoam carton.
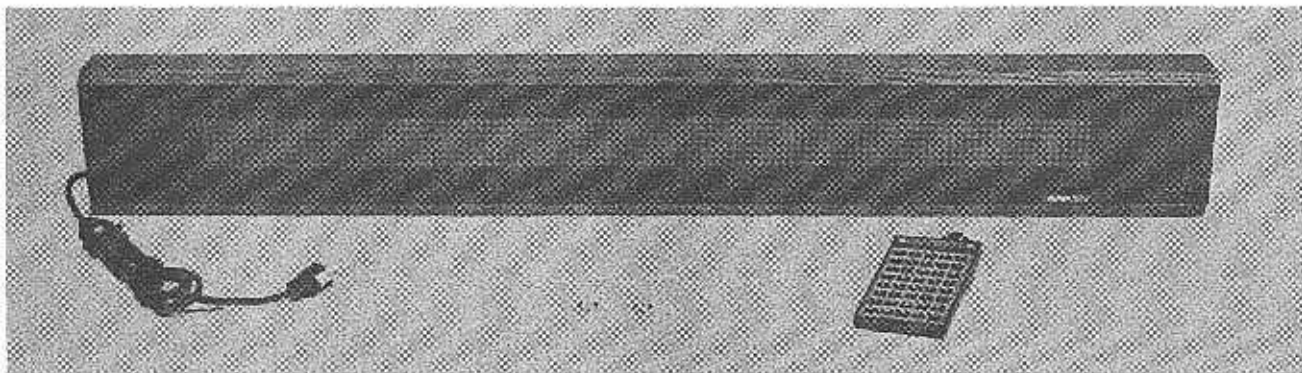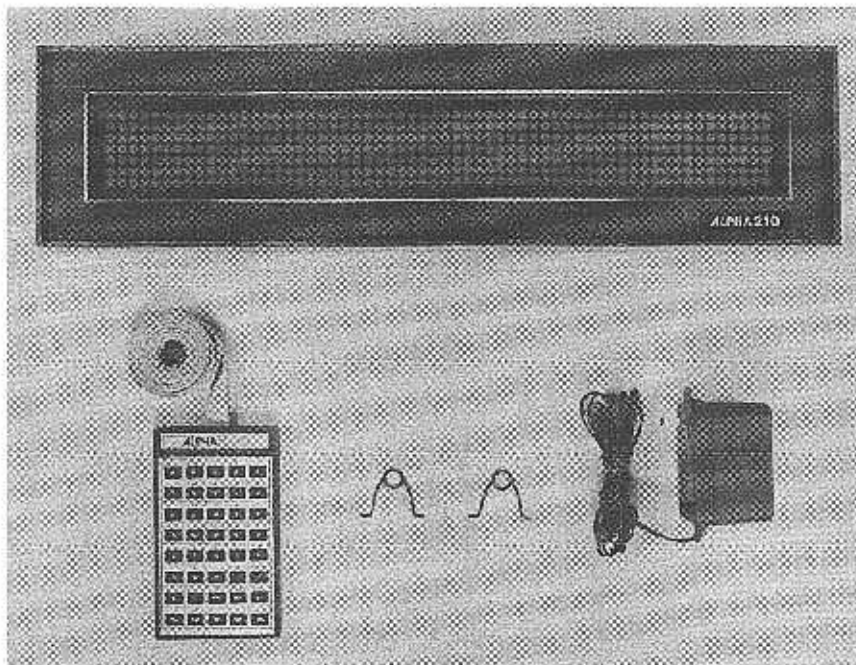
Please save all packaging material in the event that reshipment of the unit is necessary. Also, please fill out the enclosed warranty card and return it to:
Adaptive Micro Systems 7840 N. 86th Street Milwaukee, WI 53224

INSTALLATION

Power Connection
Alpha 210

The Alpha 210 is simple to power up. Just insert the cylindrical connector of the AC Adaptor into the round hole which is located on the left hand side of the Alpha 210 case. The AC Adaptor can now be plugged into any 115 volt outlet. See Figure 1.

Power Connection
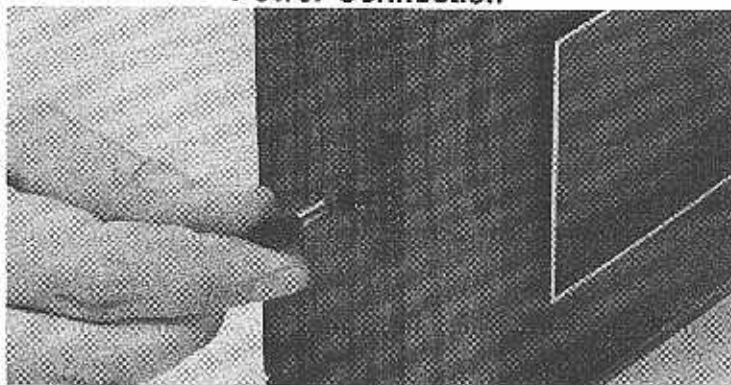
Figure 1

Alpha 220

Simply plug the line cord into any grounded 115 volt outlet.

Keyboard Connection

Insert the keyboard connector into the mating connector which is located on the left hand side of the Alpha case. See Figure 2.

Note that the keyboard connector is keyed, and that it can fit only one way into the mating connector.
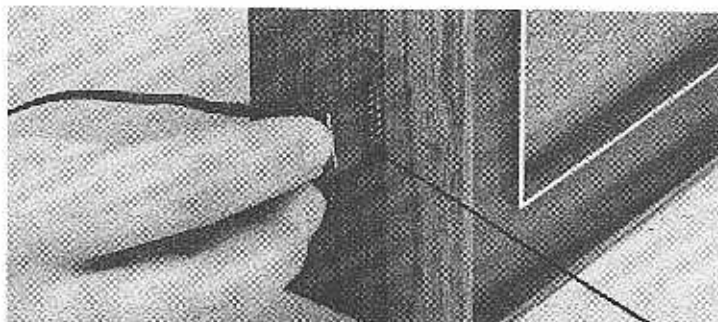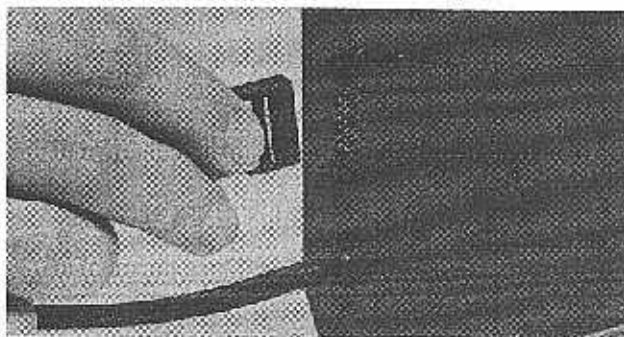
Keyboard Connection—Alpha 210

Figure 2

Keying Pin

Keyboard Connection—Alpha 220

Mounting

The Alpha was designed to mount in one of two ways. It can be wall mounted by using the mounting holes provided on the back of the case, or it can be suspended from the ceiling by using the enclosed Mounting Connectors.

Wall Mounting

Alpha 210

The Alpha 210 can easily be wall mounted by providing 2 mounting anchors on the wall which are $13^3/_8$" apart. Make sure that the mounting can with stand the $3^1/_2$ pounds of weight of the Alpha 210. See Figure 3A.

Wall Mounting—Alpha 210

13 3/8"

Figure 3A

Mounting Keyholes
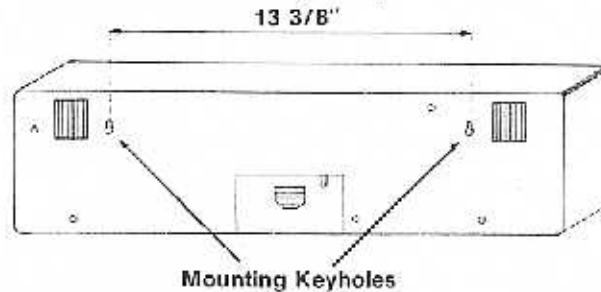
Alpha 220

The Alpha 220 can easily be wall mounted by providing 2 mounting anchors on the wall which are 43" apart. Make sure that the mounting anchors can withstand the 20 pounds of weight of the Alpha 220. See Figure 3B.

Wall Mounting—Alpha 220

Figure 3B

Mounting Keyholes
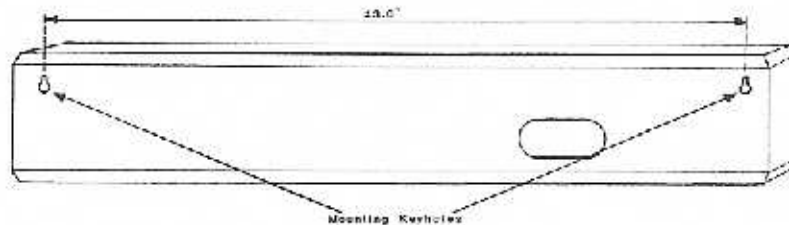
Ceiling Suspension

Alpha 210

The Alpha 210 is provided with 2 Mounting Clips. These clips are used when the unit is to be suspended from the ceiling. When the clips are inserted into the top of the case, they provide a convenient method to attach a chain which can be hung from the ceiling. To insert the clips into the case, first squeeze the arms of the clip together so that it can fit into the slot at the top of the case. Once the clips are in the slot release the pressure so that the arm goes into the case. See Figure 4A. Make sure the clip snaps into the case before attempting to suspend the unit.

Figure 4 A

Once the clips are securely seated, the clips can be connected to a chain using "S" hooks which are available at any hardware store. See Figure 4B.

Figure 4B

Ceiling Suspension
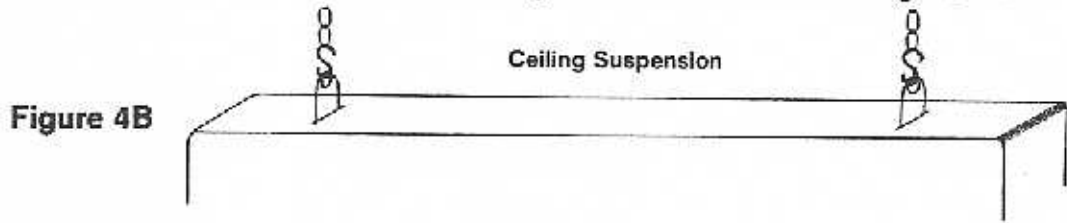
Alpha 220

The Alpha 220 is provided with 2 Eyehooks. These hooks are to be used when the unit is to be suspended from the ceiling. Note that 2 small pilot holes have been predrilled into the top wood piece of the Alpha 220. Simply screw the eyehooks into the pilot holes. See Figure 4C. Make sure that the eyehooks are screwed far enough into the wood so that the screw threads are completely in the wood. Once properly seated these eyehooks may be attached to a chain using "S" hooks. Both the chain and "S" hooks are available at any hardware store. See Figure 4B.

Eyehook Installation
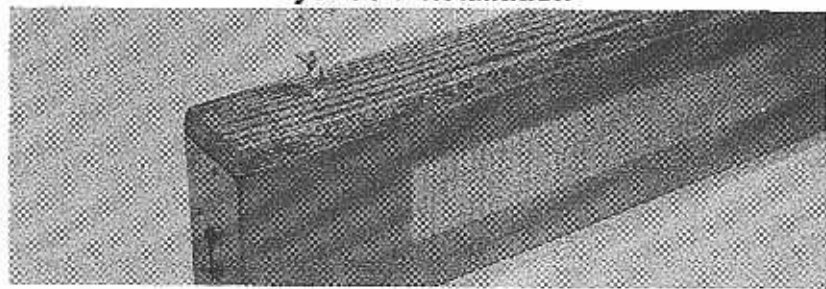
Figure 4C

Table Top Use

Alpha 210

Enclosed with the mounting clips are four adhesive backed rubber feet. These feet can be placed on the bottom of the unit to prevent scratching of the bottom of the case. Simply peel the feet off of the backing paper and place on the bottom of the unit as shown below in Figure 5A.

Figure 5A

Mounting Feet
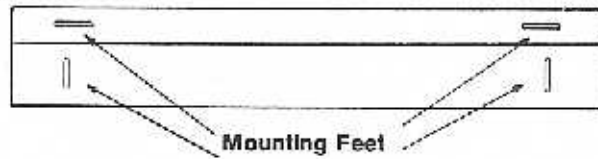
Alpha 220

Enclosed with the eyehooks are 6 adhesive backed felt feet. These feet can be placed on the bottom of the unit to prevent scratching of the bottom of the case. Simply peel the feet off of the backing paper and place on the bottom of the unit as shown below in Figure 5B.

Figure 5B

Mounting Feet

4
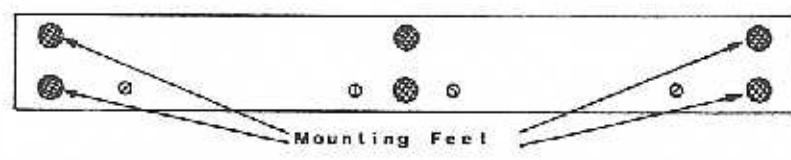
KEYBOARD OPERATION

Refer to Figure 6 to familiarize yourself with the key locations on the keyboard.

Keyboard
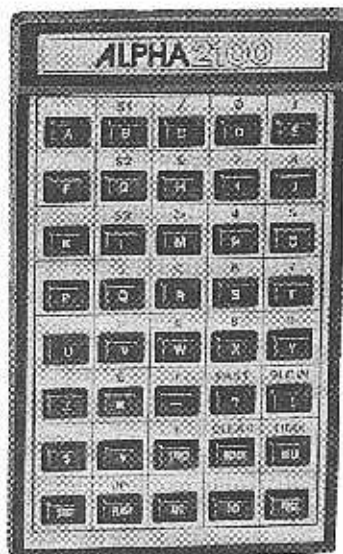
Figure 6

Please note that some keys have a character directly above them. These keys operate in a manner similar to typewriter keys. If the character directly above the key is desired, simply depress and hold down the [SHIFT] key which is located in the lower left hand corner of the keyboard, and then at the same time depress the key directly below the desired character. If the character on the key is desired, simply depress that key without depressing the [SHIFT] key.

The most commonly used characters are placed on the keys and the lesser used characters are located above the keys.

The keyboard is detachable from the unit. After all the desired messages have been entered into the unit and the messages are running, the keyboard can be detached and stored. Without the keyboard the message cannot be altered thus providing you with message security.

MESSAGE MODES

The Alpha has several different ways (modes) of displaying information. The different modes can be used to creat special effects. For example the FLASH mode is used to gain the viewers attention and emphasize the information being flashed. The 5 basic modes are as follows:

FLASH - One screenful of characters will be flashed 4 times on the display.

HOLD - One screenful of characters will appear on the diplay and will remain there for approximately 2 seconds.

ROTATE - A message of any desired length (up to the maximum character capacity of the Alpha 210 which is 1954 characters or 1884 characters for the Alpha 220) will move across the display from right to left.

UP - One screenful of characters will appear on the display, remain there for approximately 2 seconds, and then move up and off the display.

TIME - The time of day will appear on the display and will remain there for approximately 3 seconds.

Other modes of displaying information are available on the optional Graphics Chips. See your Alpha dealer for ordering information.

Section 5

MESSAGE ENTRY

In order to have your Alpha display the desired information you must enter that information into the sign. First make sure that the Alpha is plugged into an outlet. Next make sure the keyboard connector is properly inserted into its mating connector which is also located on the left hand side of the Alpha. See INSTALLATION section. You are now ready to enter a message into your unit.

There are 5 basic steps to use to enter and run your message. By following these steps you will find that your Alpha is very simple to operate. These 5 steps are also printed on the back of the keyboard so that they are always handy. They are as follows:

Step 1.   Depress [PROG] key.

Depressing this key causes the unit to stop displaying the messages, and resets the Alpha to the beginning of all the messages entered. The Alpha is now ready to have a new message entered, or the previous messages entered can now be reviewed. At this time the screen will be blank.

Step 2.   Depress one of the Mode keys: [FLASH] , [HOLD] , [ROTATE] , [TIME] or [UP]

Depressing one of these keys tells the unit what type of action to perform on the message that you will enter. When one of these keys are depressed the display will show a lower case letter which indicates the mode you are in. These lower case letters will only appear during message entry and will not appear during the normal running of a message. When the [FLASH] key is depressed a lower case "f" appears. When the [HOLD] key is depressed a lower case "h" appears and etc.

Step 3.   Enter the message that is to be displayed in that mode.

Note that only 10 characters for the Alpha 210 or 20 characters for the Alpha 220 can be entered in the Flash, Hold, and Up modes. If you desire to add more characters in one of these modes, depress one of these mode keys again and enter the next message.

Step 4.   Repeat Steps 2 and 3 until all the desired messages have been entered.

Step 5.   Depress the [RUN] key when you have entered all the messages you wish to display.

This activates the display and the messages you entered will be continuously displayed. You must depress the [RUN] key before you can re-enter the Programming mode.

Section 6

MESSAGE CAPACITY

The Alpha 210 has the capacity to display messages totaling 1,954 characters. The Alpha 220 has the capacity to display messages up to 1884 characters. A character is defined as any letter, number symbol, space, or mode (lower case letter). This translates into several minutes of information being displayed before the message repeats. If you try to enter more than the maximum amount of characters, the unit will not accept the characters.

TIME SETTING

When the Time mode is entered for the first time, the clock must be set to the correct time. Setting the time on the Alpha is similar to setting the time on any digital clock. First you must be in the Time mode. This is accomplished by depressing and holding the ⌐ SHIFT ⌐ key and then depressing the Time/Hold key. The display will now show the time. Change the time by depressing and holding down the ⌐ SHIFT ⌐ and then depress either the ⌐ FAST ⌐ or ⌐ SLOW ⌐ key. As long as either the ⌐ FAST ⌐ or ⌐ SLOW ⌐ key is depressed in this manner the time displayed will advance. Use the ⌐ FAST ⌐ key to set the hours, and then use the ⌐ SLOW ⌐ key to set the minutes.

Once the clock has been set it will maintain the correct time unless power is removed from the unit. Should power be removed, the clock will no longer display the correct time. To set the clock to the correct time following a power loss, follow the procedures outlined in the MESSAGE REVIEWING section. Advance through your message to the point where the time is displayed, then set the time by following the procedures previously outlined.

MESSAGE REVIEWING

After you have entered your messages, you may want to review what you have entered.

Note that in order to have the Alpha operate properly you must have depressed the ⌐ RUN ⌐ key prior to entering this or any other mode.

The following procedure allows you to review your message:

Step 1. Depress the ⌐ PROG ⌐ key. The unit is now at the beginning of your first message.

Step 2. Depress and release the ⌐ ADV ⌐ key. Note that the first character you entered in the unit will now be displayed. In most cases this character will be a lower case letter signifying the mode. Each time the ⌐ ADV ⌐ key is depressed the next sequential character that you originally entered will be displayed. If you continuously hold down the ⌐ ADV ⌐ key the unit will automatically scan through the messages you entered. The longer you hold down the ⌐ ADV ⌐ key, the faster the unit will scan. To stop the scanning simply release the ⌐ ADV ⌐ key.

Step 3. Once you have started reviewing a message you must always advance through your complete messages. The Alpha will automatically stop at the end of the message when advancing through. Failure to advance to the end of all the entered messages will cause a loss of part of the messages you entered.

Step 4. After the Alpha stops at the end of your messages, depress the ⌈ RUN ⌉ key to activate operation of the Alpha.

Note that when you are reviewing your messages and you encounter an error or wish to alter the message, please see MESSAGE CORRECTION AND ALTERATION section.

Section 9

MESSAGE CORRECTION AND ALTERATION

If you discover that an incorrect character was entered or that you want to alter a word or phrase, you must first display the character or characters you wish to alter. See MESSAGE REVIEWING section. The character to be altered must be positioned at the furthest right hand position of the display. The following steps describe the procedure to alter the character:

Step 1 Depress and hold down the ⌈ SHIFT ⌉ key, and then depress and release the ⌈ CLEAR ⌉ key. The Alpha will automatically erase the right most character and back space your message. If you wish to delete more than one character, again depress the ⌈ CLEAR ⌉ key while holding down the ⌈ SHIFT ⌉ key. Each time the ⌈ CLEAR ⌉ key is depressed, one more character is erased.

Step 2. Once the unwanted characters have been erased, the new characters can be entered simply by depressing the desired character's keys.

Note that each deleted character must be replaced by any other character including a space. You cannot insert more characters than you deleted without overwriting the messages that follow.

Step 3. To add words or phrases to the end of your existing message, you must first get to the end of the message. This is accomplished by either advancing through all of your messages until the unit stops, or you can depress and hold down the ⌈ SHIFT ⌉ key and then depress the ⌈ PROG ⌉ key. The second method immediately puts you at the end of your messages. You may now enter your additional message by following the procedures outlined in the MESSAGE ENTRY section starting with Step 2. When you have completed adding your additional message, simply depress the ⌈ RUN ⌉ key to display your messages.

MESSAGE EXAMPLES

Now that you have become familiar with the basic entry techniques, you can begin entering sample messages by following these step by step examples. When you have entered all of the examples you should be capable of programming your own messages.

Example 1 - Flash Mode

Step 1. Depress [PROG] key.

Step 2. Depress [FLASH] key. A "f" will now be displayed indicating that you are in the [FLASH] mode.

Step 3. Depress [H] , [E] , [L] , [L] , [O] , keys. This display will be showing "HELLO".

Step 4. Depress [SPACE] key to center the word on the display.

Step 5. Depress [RUN] key. The unit will now flash the word "HELLO". Since this is the only message entered, the unit will continously repeat the flashing sequence.

Example 2 - Rotate Mode and Message Addition

Step 1. Depress [PROG] key. The unit will stop displaying.

Step 2. Depress and hold down the [ADV] key until the unit stops advancing.

Step 3. Depress the [ROTATE] key. A "r" will appear on the display indicating that you are in the rotate mode.

Step 4. Depress the following keys: [I] , [SPACE] , [A] , [M] , [SPACE] , [Y] , [O] , [U] , [R] . The display will show "I AM YOUR".

Step 5. Depress the [SPACE] key to move "I AM YOUR" off the left edge of the screen. The unit now contains the phrase "HELLO I AM YOUR". Now proceed to the next example.

Example 3 - Hold Mode

Step 1. Depress [HOLD] key. A "h" will now be displayed indicating that you are in the HOLD mode.

Step 2. Depress the following keys: [A] , [L] , [P] , [H] , [A] . The display will show "hALPHA".

Step 3. Depress the [SPACE] key to center "ALPHA". The flashing "HELLO", rotating "I AM YOUR", and holding "ALPHA" are now programmed into the unit. You are now ready to proceed to the next example.

Example 4 - Scroll Up Mode

Step 1. Depress and hold the [SHIFT] key. While holding down the [SHIFT] key, depress [UP] key. A "u" will now be displayed indicating that you are in the SCROLL UP mode.

Step 2 While continuing to hold down the [SHIFT] key, depress the following keys: [2] , [1] , [0] , [SPACE] or [2] , [2] , [0] .

Step 3 Release [SHIFT] key.

Step 4 Depress the [SPACE] key to center "210" or "220" on the display.

Step 5 Depress the [RUN] key. The unit will now flash "HELLO", rotate "I AM YOUR" hold "ALPHA", then hold "210" or "220" briefly and finally scroll up "210" or "220".

Example 5 - Time Mode

Step 1. Depress the ⌷PROG⌷ key. The unit will stop displaying information.

Step 2. Depress and hold down the ⌷ADV⌷ key until the unit advances through all the messages entered and stops at the end.

Step 3. While holding down the ⌷SHIFT⌷ key, depress ⌷TIME⌷ key. The unit will display the time.

Step 4. Set the proper time by holding down the ⌷SHIFT⌷ key and then depressing either the ⌷FAST⌷ or ⌷SLOW⌷ keys. The ⌷FAST⌷ key increments the hours and the ⌷SLOW⌷ key increments the minutes.

Step 5. Depress the ⌷RUN⌷ key. The unit will now flash "HELLO" rotate "I AM YOUR", hold "ALPHA", scroll up "210" or "220" and display the time.

Example 6 - Alteration of a Message

Step 1. Depress the ⌷PROG⌷ key.

Step 2. Depress the ⌷ADV⌷ key one stroke at a time until the "O" in "HELLO" is at the right most position of the display. If you accidentally advance past the end of "HELLO", just depress the PROG key and repeat the operation.

Step 3. With the "O" at the right most position of the display, depress and hold the SHIFT key and at the same time depress the CLEAR key 5 times. You will notice that each time the CLEAR key is depressed, the message moves back one character. Now the word "HELLO" can be replaced. Remember that "HELLO" is 5 characters long and all 5 characters must be replaced. A space is considered a character.

Step 4. Depress the following key sequence: ⌷SPACE⌷ , ⌷SPACE⌷ , ⌷H⌷ , ⌷I⌷ , ⌷SPACE⌷ . You have now replaced "HELLO" with "HI". The new word will still be in the FLASH mode. This is because you did not clear the "f" at the beginning of the word which signifies the FLASH mode. If you wanted to, you could have also cleared the FLASH mode and replaced it with a different mode.

Step 5. Depress and hold down the ⌷ADV⌷ key to scan through the rest of the copy until the scanning stops at the end of your message.

Step 6. Depress the ⌷RUN⌷ key. The unit will now flash "HI" rotate "I AM YOUR", hold "ALPHA", scroll up "210" or "220" and display the time of day.

Note that it is important to remember that in this alteration procedure you must depress the ⌷ADV⌷ key and scan through all your messages before depressing the ⌷RUN⌷ key.

The ⌷RUN⌷ key tells the Alpha that you have completed your message and it will display only the messages entered up to that point. If you depress the ⌷RUN⌷ key before you scan completely through your entire message, then you will cut off the remainder of the message.

MESSAGE HINTS

The following are a few hints on how to make your Alpha more versatile and interesting:

1 To emphasize a word you may want to lengthen the time a word is held on the display. To do so simply enter the same word twice in the HOLD mode. The word will now hold for 4 seconds on the display instead of 2 seconds. The same thing can be done for the FLASH mode.

2. To generate a pause in the message simply enter the FLASH or HOLD mode and don't enter a message. This will cause the display to go blank for either a 4 or 2 second period of time. This is a good way to put a break at the end of your message before it repeats.

3. Arrows can be generated on the display by using either " $<$ " or " $>$ " in conjunction with "-" to give "--->" " or " $<$-----".

4. When using the ROTATE mode you can avoid losing the customers attention between messages by placing several periods after each message to form a smooth transition.

5. You can make the ROTATE mode appear slower by placing extra spaces between the words.

6. If you want to delete entire parts of the last message entered, depress and release the [PROG] key, and then hold down the [ADV] key until the last word appears that you want to save. Depress the [RUN] key. All the messages after your last word saved will be deleted.

MESSAGE RETENTION

As long as the Alpha is plugged into a powered A.C. socket, the messages you entered will remain in the unit. However, if there is a power failure or you unplug the Alpha, the messages you entered will remain in the unit for a minimum of 96 hours. When power is returned to the unit, the unit will automatically begin running the messages you entered. The Alpha must be powered at least 8 hours to ensure sufficient charging time prior to unplugging for 96 hours. The shorter the amount of time plugged in results in a shorter message retention time.

Since your Alpha is completely solid state, there are no batteries in the unit and thus no batteries to wear out and replace.

OPTIONAL GRAPHICS CHIPS INSERTION & REMOVAL

Graphic routines may be added to any standard message by using Graphic Chips. These optional Graphic Chips are customer changeable, so you can easily add these graphic features to your Alpha. The following procedure allows you to insert and remove the Chips:

Note: The chip and the circuitry inside the case may be affected by static electricity. Do not touch the metal portion of the chip or the internal parts of the Alpha. To ensure that you don't harm the unit, discharge any static electricity on yourself by touching a grounded metal object just prior to handling the Grahic Chip.

Step 1. Remove power from the Alpha by unplugging the unit.

Step 2. Alpha 210
Remove the Access Cover from the back of the Alpha 210. This is accomplished by slightly depressing the Access Cover at the arrow and at the same time sliding the cover down. See Figure 7A.
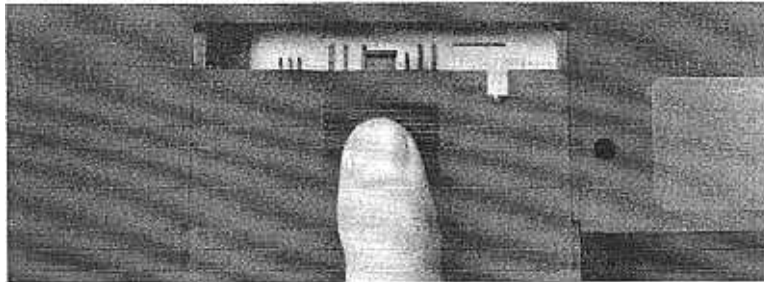
Access Door Removal—Alpha 210

Figure 7A

Alpha 220
Remove the access cover by gently inserting a screwdriver in either slot on the side of the cover. Then gently pry off the cover. See Figure 7B.

Access Cover Removal—Alpha 220

Figure 7B

When the cover has been removed you will see the "chip" and "chip switch". See Figure 8.
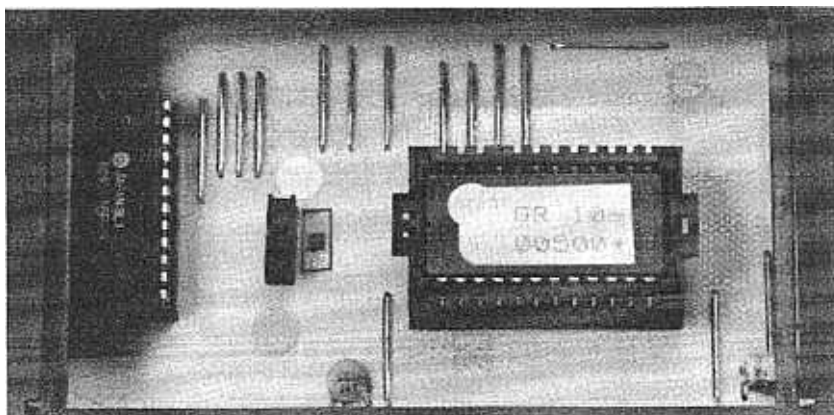
Chip Location

Figure 8

Step 3. The "chip" may now be removed using thumb and forefinger, grasp the tabs at both ends of the chip and pull the chip straight out. The chip fits securely in its socket and you may have to use a slight rocking to remove the chip. See Figure 9.
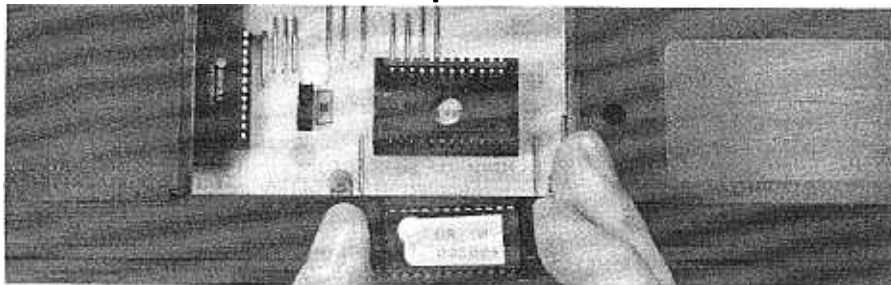
Chip Removal

Figure 9

Step 4. The new "chip" may now be inserted into its socket. The chip assembly is keyed so that it can fit into the socket in only one way. The chip assembly should be oriented so that the tab with 2 holes in it is towards the chip switch while the tab with one hole is away from the switch. See Figure 10.

Chip Orientation

Tab with 2 holes

Square

Tab with single hole

Figure 10

Pointed
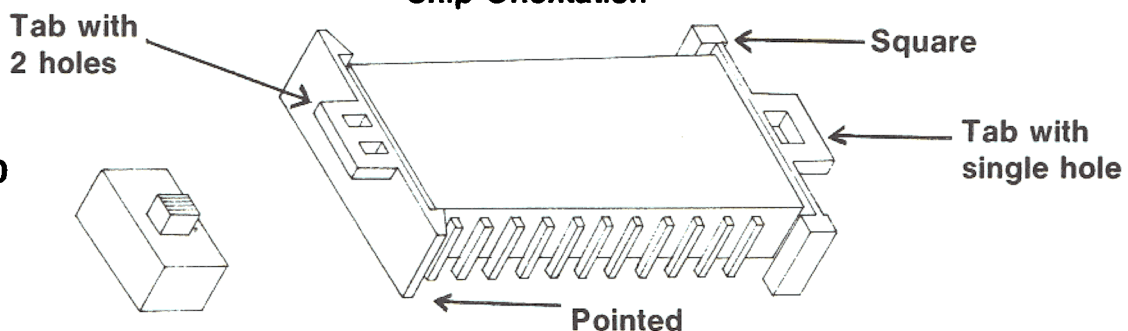
When the chip has been oriented properly, simply push it into the socket. The chip assembly will be flush with the socket when it is seated properly.

Before inserting the chip make sure the chip has the correct GR-500 series number on it. This is the proper series for this unit. The GR10-500 series is used for the Alpha 210, and the GR20-500 series is used for the Alpha 220.

Step 5. Once the chip assembly has been inserted, the chip switch must be properly set for that chip. The switch has 2 signal dots adjacent to it. At one end is a red dot and at the other end there is a white dot. Each chip also has a signal dot on it. The switch position must match the color of the dot on the chip. For example, if the chip has a white dot on it, then the switch must be set so the sliding arm of the switch is towards the end with the white dot. See Figure 11.

Switch Position

Switch is set
for chip with
white dot

Figure 11

> Note: The switch must be in the proper position or the Alpha will not operate properly.

Step 6. Replace the Access Cover.

Step 7. Reapply power. The unit is now ready for message entry.

Section 14 _____

OPTIONAL GRAPHICS ENTRY

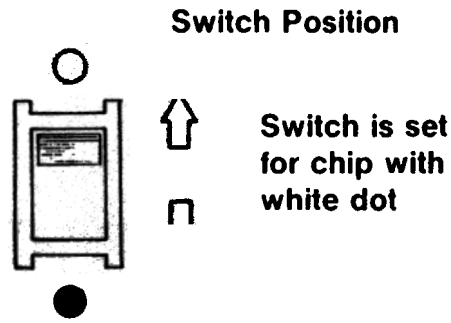By using the optional Graphics Chips, graphic scenes may be made to appear anywhere throughout your message. The graphic scenes can draw attention to your message and add interest to the display. In order to display these scenes, you must first remove your current chip and replace it with a new graphic chip. See section 13 on changing a graphic chip.

A graphic scene may be made to appear as many times and wherever in your message as you desire. Remember that each time a graphic scene is entered it uses up two characters of the available memory.

The following is the procedure to enter graphic scenes:

Step 1. Depress and hold down the ⌷SHIFT⌷ key and at the same time depress the ⌷ B ⌷ key. A lower case "s" will appear on the right hand side of the display indicating the special mode.

Step 2. Depress and hold down the ⌷SHIFT⌷ key, and at the same time depress the corresponding number (0-9) of the desired graphic scene. (Refer to the Instruction Sheet included with the Graphic Chip to determine which graphic scenes pertain to the numbers).

Remember that graphic scenes can be interspersed right along with the standard messages.

Please contact your local AMS dealer for more information and availability of Graphics Chips.

TROUBLESHOOTING

Occasionally a problem may occur in the operation of your Alpha. If a problem does occur, the following lists of symptoms and corrective actions will help resolve the problem.

SYMPTOM	CORRECTIVE ACTION
Nothing appears on display	1 Check to see that the Alpha is plugged into a live outlet. 2. Check to see that the AC Adaptor connector is properly inserted into the left hand side of the Alpha 210. (See Section 2). 3. Check to see that there is a message in your Alpha. Without a message entered into the unit, there will be nothing displayed. (See Section 5). 4. Check to see that the Chip Switch is in the proper position for the chip being used. (See Section 13 Optional Graphics Chips Insertion and Removal). 5. Check to see that the Graphic Chip or standard chip is securely seated in its socket. (See Section 13). 6. In case of power failure, especially due to electrical storms, unplug the unit and let it sit for a few seconds. Then reapply the power to the Alpha. 7. Contact your local AMS dealer for further help.
Information displayed appears erratic or incorrect.	1. Check to see that the Chip Switch is in the proper position for the chip being used. (See Section 13). 2. Check to see that the Graphic Chip or Standard Chip is securely seated in its socket. (See Section 13). 3. Contact your local AMS dealer for further help.
Keyboard does not operate properly.	1 Check to see that the keyboard connector is properly inserted into the left hand side of the Alpha 210. 2. Make sure that the ⌐PROG⌐ key has been depressed prior to entering any information into the unit.

WARRANTY INFORMATION

Adaptive Micro Systems, Inc. warrants to the original purchaser that the Alpha product will be free from defects in workmanship and materials for a period of one year from the date of purchase.

Adaptive Micro Systems will, without charge, repair or replace, at its option, defective product or component parts upon delivery to the factory service department accompanied by proof of the date purchased in the form of a sales receipt.

To obtain warranty coverage, this product must be registered by completing and mailing the enclosed warranty registration card to:

<div align="center">

Adaptive Micro Systems, Inc.
7840 N. 86th Street
Milwaukee, WI 53224

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within fifteen days from the date of purchase.

Exclusions: This warranty does not apply in the event of any misuse or abuse of the product, or as a result of any unauthorized repairs or alterations. This warranty does not apply if the serial number is altered, defaced, or removed.

Should your Alpha unit need any servicing it must be returned to AMS. Please call your local dealer to receive a return merchandise number before sending your Alpha unit back for servicing.

Section 17 _____

SPECIFICATIONS

	Alpha 210	**Alpha 220**
Weight	3.5 lbs.	13.5 lbs.
Shipping Weight	7 lbs.	20 lbs.
Shipping Carton Dimensions	29.5"L x 8.25"W x 4.75"D	57"L x 10"W x 7"D
Length	21.5"	46.00"
Height	5.5"	2.75"
Width	2.75"	6.25"
Display Area	2" x 18"	2" x 36"
Character Array	5 x 7 Dot Matrix	5 x 7 Dot Matrix
Number of Characters	10 Characters	20 Characters
Message Size	1,954 Characters	1,884 Characters
Message Retention Time	96 hours without power	96 hours without power
Power	20 watts	40 watts
Power Cord Length	10 feet	10 feet
Keyboard Cable Length	6 feet	6 feet
Operating Temperature	0°C - 50°C 32°F - 120°F	0°C - 50°C 32°F - 120°F

ALPHA 221 Message center functions similarly to the ALPHA 220. However, there are some differences, along with some added features which are listed and explained briefly in the following text.

SECTION 1:   FUNCTIONAL DIFFERENCES

1.1) The unit has sound capability. Upon power up the plugging in of sign), each time a key is depressed during programming, the unit will emit sound.   If sound is not desired, simply depress the [SHIFT] key, and simultaneously depress the [RUN] key. This will turn off the speakers.   By repeating the above instruction, the sound can be turned back on.

1.2) While in the program mode, at the beginning of memory, a cursor will be lit at the right of the display.   The only other time that this cursor will appear is when you desire a change in the width of the characters (See 2.2b).

1.3) The ALPHA 221 has the capacity to display messages totalling 1,532 characters.

1.4   The unit will automatically center each message for you.   If you wish to have a particular message off-center, simply put spaces before or after the desired message depending upon where you want the message to appear.

SECTION 2: ADDED FEATURES

2.1) There are a few added features that make editing more user
      friendly

   a) INSERT Function (depress ‎SHIFT‎ & ‎ , ‎): When pressed dur-
       ing programming, a dot will appear in the upper right hand corner
       of the display. By pressing the desired character key, that
       character will be inserted immediately after the last
       character on the right side of the display.

   b) DELETE Function (depress ‎SHIFT‎ & ‎ROTATE‎): When pressed
       during programming, the last character on the right side of
       the display will be erased from memory.

   c) BACK Function (depress ‎SHIFT‎ & ‎ADV.‎): While in the program
       mode, this will allow you to backspace through your message.

   d) ‎RUN‎ key: At the end of your programmed message, when you
       wish to run it, press the ‎RUN‎ key and the question, "END
       MESSAGE HERE? Y/N" will appear on the display. By pressing
       the ‎Y‎ key or the ‎RUN‎ key, your message will run
       By pressing the ‎N‎ key, you will return to where you
       were in your message before you depressed the ‎RUN‎ key. By
       pressing the ‎PROG.‎ key, you will return to the beginning
       of your message.

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e) MEMORY Function (depress $\boxed{\text{SHIFT}}$ & $\boxed{\text{B}}$ + $\boxed{\text{M}}$): By holding

down the $\boxed{\text{SHIFT}}$ key and depressing the $\boxed{\text{B}}$ key, "SPECIAL"

appear in the upper left hand corner of the display

Release the $\boxed{\text{SHIFT}}$ key and depress the $\boxed{\text{M}}$ key. "MEMORY"

will appear on the screen followed by, "USED XXXX LEFT YYYY."

XXXX - is the number which represents the amount of

characters (including mode characters that you have

entered in up to that point in your message.

YYYY - is the number which represents the amount of

programmable memory left to the user from that point

on

*** To get back to the point of memory where you were before

doing the memory check, simply press any key except

the $\boxed{\text{PROG.}}$ key. The $\boxed{\text{PROG.}}$ key will take you back

to the beginning of your message.

2.2) CHARACTER SETS: Upon power up, the ALPHA 221 will program with

standard capital letters. Lower case standard letters along with

wide upper and lower case letters are also available for

programming.

a) Lower case letters: By pressing the $\boxed{\text{S1}}$ key + the $\boxed{\text{L}}$

($\boxed{\text{SHIFT}}$ $\boxed{\text{B}}$ + $\boxed{\text{L}}$), you will be programming lower

case letters. To return to upper case press the $\boxed{\text{S1}}$ key

+ the $\boxed{\text{L}}$ key again.

b)   Wide upper and lower case letters: When wide characters are desired, press the $\boxed{S1}$ key + the $\boxed{W}$ key ($\boxed{SHIFT}$ $\boxed{B}$ + $\boxed{W}$). A cursor with a dot below it will appear on the right of your current message.   The cursor lets you know that you can only enter a mode at this point.   The characters following the mode will be wide.   If you wish to go back to the standard letters, press the $\boxed{S1}$ key + the $\boxed{W}$ again.   The cursor will appear again, but without the dot below it.   This tells you that you are going into the standard character set.   Again, you must first enter a mode before continuing.

*** To get out of the "SPECIAL" mode simply hold the $\boxed{SHIFT}$ key down and depress the $\boxed{B}$ key again.

*** You cannot get wide and standard letters within the same mode.

2.3   SCROLL DOWN mode: The $\boxed{S2}$ key ($\boxed{SHIFT}$ $\boxed{G}$) will give you the "SCROLL DOWN" mode. The message currently on the display will be pushed off the bottom of the display by a new message coming down from the top of the display.

2.4) WIPE UP mode: The SPECIAL 1 ($\boxed{SHIFT}$ $\boxed{B}$ + $\boxed{SHIFT}$ $\boxed{E}$) sequence will give you the "WIPE UP" mode.   The message currently

on the display will be wiped over from bottom to top with the new message.

2.5) WIPE DOWN mode: The SPECIAL 2 ([SHIFT] [B] + [SHIFT] [I]) key sequence will give you the "WIPE DOWN" mode. The message currently on the display will be wiped over from top to bottom with the new message.