ALPHA ES   Instruction Manual

ALPHA Model 440, 460, 480

TABLE OF CONTENTS

UNPACKING

You should have received two (2) boxes with your ALPHA ES order. A large box and a small box. If you haven't already done so, carefully open the large box and remove the contents. The following items are included:

      1 - ALPHA ES Electronic Message Center
      1 - ALPHA ES Keyboard
      2 - ALPHA Hanging Brackets
      1 - ALPHA ES Instruction Manual
      1 - ALPHA Warranty Card
    10 - ALPHA Counter Mounting Feet

Carefully open the smaller box and remove the contents. It should contain:

      1 - ALPHA ES In-Line Transformer
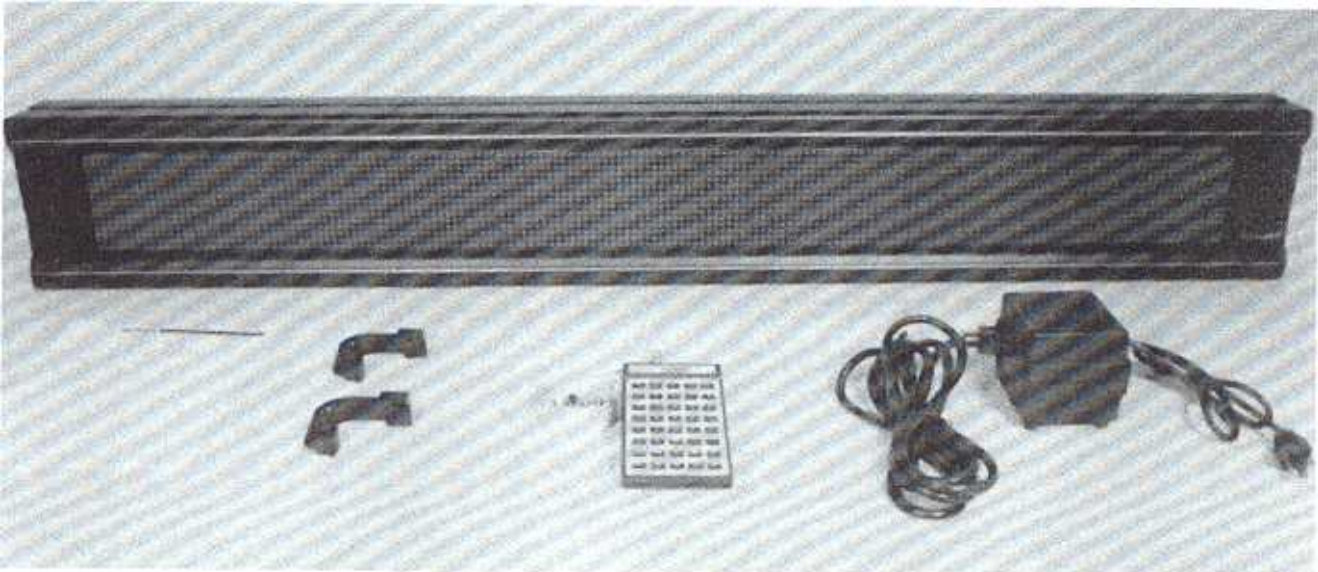
Figure 1

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 to:

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

INSTALLATION

Power Connection - In Line Transformer

The ALPHA ES is simple to power up. Just insert the 3 pin connector of the In-Line Transformer into its mating connector located at the lower right hand side of the Alpha ES case. The line cord coming out of the In-Line Transformer can now be plugged into any 115 volt outlet. See Figure 2.

> **NEVER** plug your Alpha ES unit directly into a 115 volt outlet, always use the supplied In-Line Transformer to power your sign.

Figure 2

Keyboard Connection

To connect the keyboard, insert the keyboard connector into its mating connector which is located directly above the power connector on the right hand side of the Alpha ES case. See Figure 3.

Note that the keyboard connector is keyed, and it can fit only one way into the mating connector.
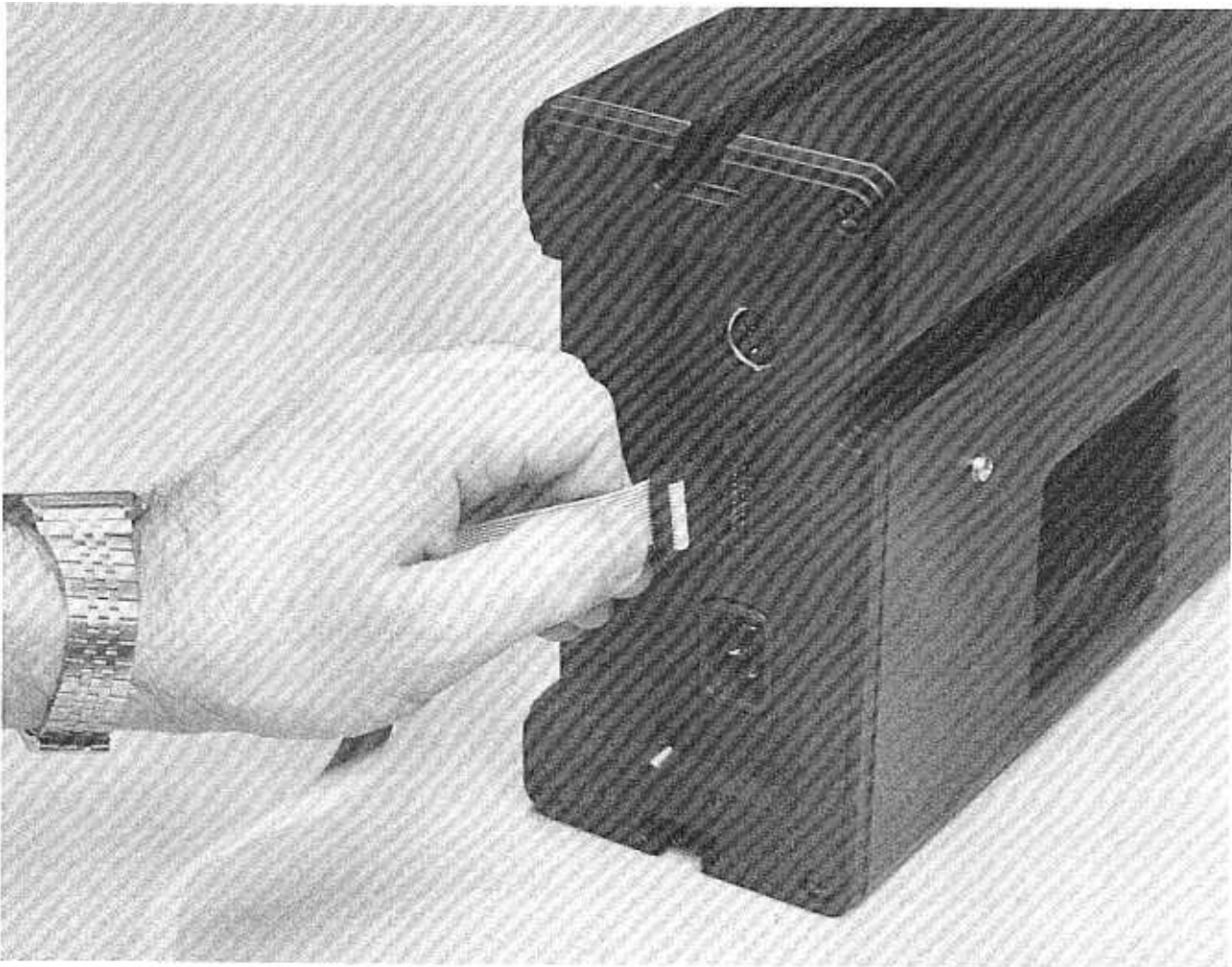
Figure 3

MOUNTING

Your Alpha ES unit comes with two (2) specially designed hanging brackets that can be used for either wall mounting or ceiling suspension.

When selecting a mounting location be sure that there is sufficient support for your Alpha ES unit. Check the weight of your Alpha ES unit in Section 17.

Installing the Hanging Brackets

Your Alpha ES unit has channels running the length of it on the top, back and bottom. The hanging brackets slide into the top and the back channel. One bracket must be slid in from each end of the unit. There are 2 stops in the channel to prevent the hanging brackets from sliding together. Slide the brackets all the way to the stops. See Figure 4.

Figure 4

WALL MOUNTING

Each hanging bracket has a key hole near the back channel for wall mounting. Use a #10 screw or equivalent for each bracket.

First install the hanging brackets on your unit. Make sure that the mounting anchors you use can withstand the weight of your Alpha ES unit. Once your mounting anchors are in place and the screws are fastened t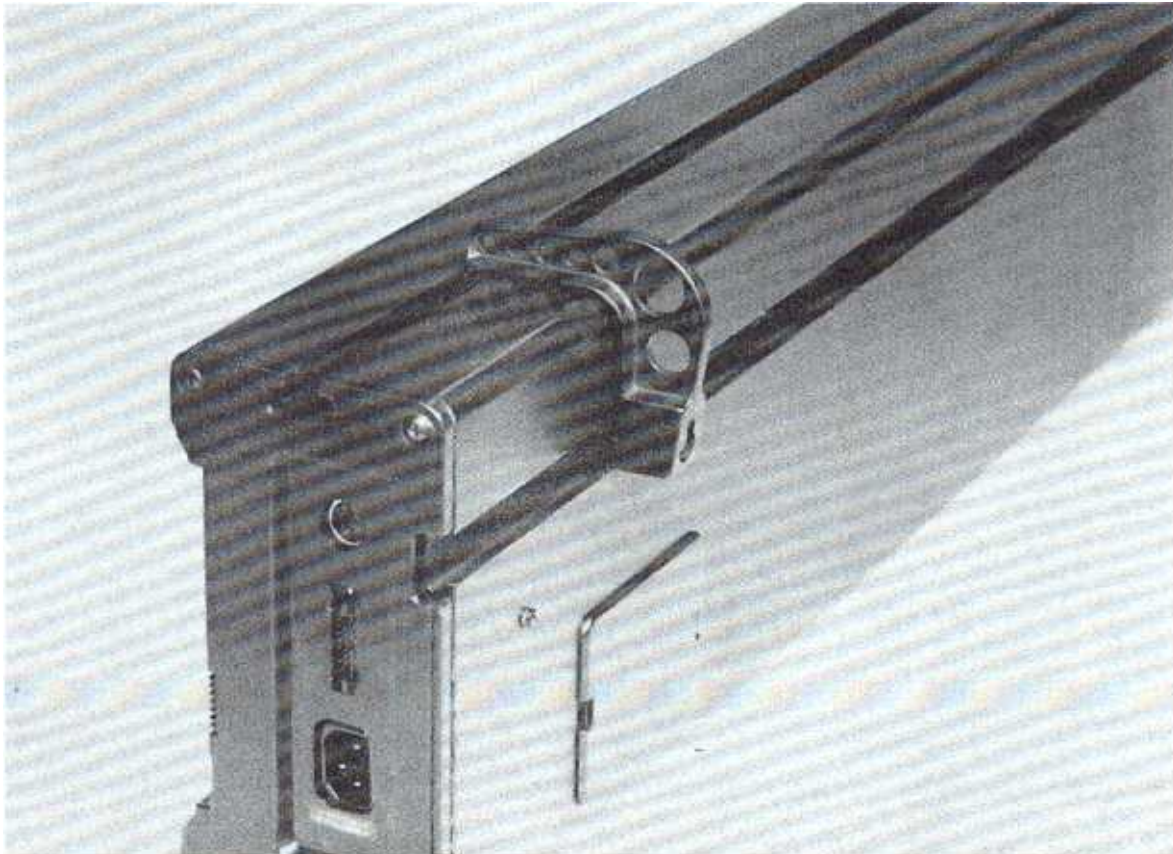o the anchors, place the head of the screws through the keyhole on the hanging bracket. Make sure that the screw heads slide into the narrow part of the key hole. The unit will tilt forward 15 degrees to provide optimum viewability.

CEILING SUSPENSION

The hanging brackets have 7 positions to attach a chain for ceiling suspension which provide 7 different tilt angles. Select the position that tilts the unit at the proper angle to yield unobstructed direct viewing for your application. See Figure 5.
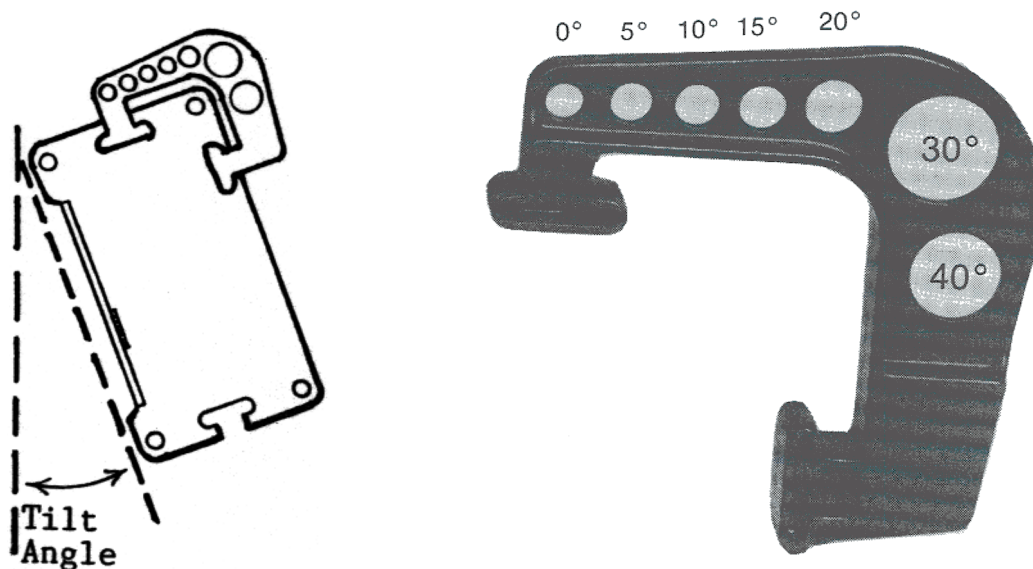
Figure 5

Use "S" hooks and chain available at any hardware store for ceiling suspension. Make sure that the hooks and chain you select will support the weight of your Alpha ES unit.

TABLE TOP USE

Enclosed with the mounting brackets are 10 adhesive backed feet. These feet can be placed on the bottom of the unit to prevent scratching of the bottom of the case and/or counter top. Simply peel the feet off the backing paper and distribute evenly along the bottom of your Alpha ES unit.

KEYBOARD OPERATION

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

ALPHA ES Keyboard
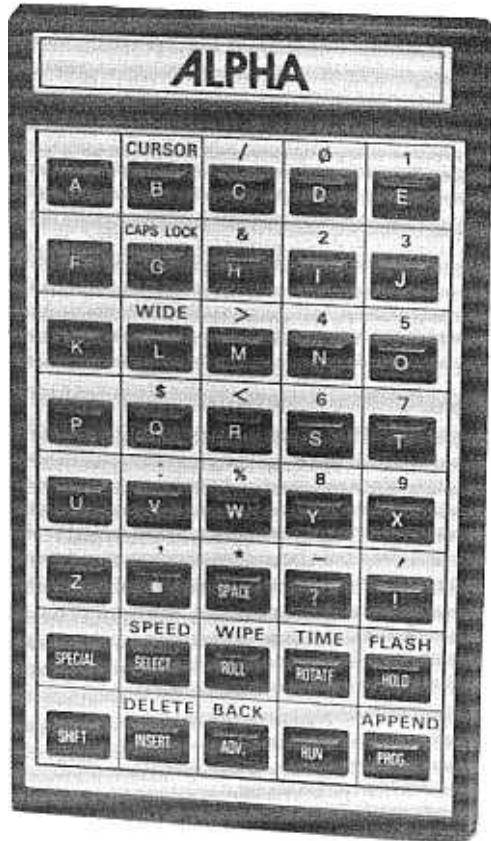
Figure 6

Please note that some keys have a character directly above them. These keys operate in a manner similiar 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 AND CHARACTER SIZES

Your ALPHA ES unit has 2 character heights and several different ways (modes) of displaying information. The different modes and sizes can be used to create interesting effects. The 12 basic modes are as follows:

ROTATE:	Rotates a message from right to left on the desired line.
FLASH:	Flashes the desired line of information.
HOLD:	Holds the line of information on the display
SCROLL:	Scrolls your message of 2 inch characters up to the bottom line while scrolling the bottom line to the top line and the top line off the display. You can enter as many characters as you wish in the scroll mode (up to memory limitations). When you run the scroll, your message will be automatically broken up at spaces and centered on the display.

WIPE UP: Wipes the new message over the previous message
WIPE DOWN   After pressing the ⬛WIPE⬛ key any of the 4 wipe
WIPE LEFT: directions (up, down, left or right) may be chosen
WIPE RIGHT: using the ⬛SELECT⬛ key.

ROLL UP: Rolls the previous message off while rolling the
ROLL DOWN: new message onto the display. After pressing the
ROLL LEFT: ⬛ROLL⬛ key any of the 4 Roll directions (up, down,
ROLL RIGHT: left or right) may be chosen using the ⬛SELECT⬛ key.

ADDITIONAL MESSAGE CONTROL FEATURES

If no message is entered after a display mode, the mode is considered a trailing command. Trailing commands perform their function on the message that is currently on the display. See Section 11 for message examples.

SPEED: The user has complete control over all message speeds. There are 5 speeds available for your use, Speed 1 (slowest) through Speed 5 (fastest). The user can change his message speed as often as he desires in his messge. After pressing the ⬛SPEED⬛ key any of the 5 speeds may be chosen using the ⬛SELECT⬛ key. All messages entered after a Speed control will run at the new speed.

WIDE/SLIM   The user can alternate between normal (slim) and bold (wide)
CHARACTERS: characters anywhere in his message. After pressing the ⌷ WIDE ⌷ key
                   use the ⌷ SELECT ⌷ key to choose the desired character width.

Section 5

MESSAGE ENTRY

After making sure that the unit is powered and the keyboard is inserted into the keyboard
socket (see Section 2), you will be ready to enter a message. The following steps are the
basic steps that need to be followed to enter a message. They are:

STEP 1.   Depress the ⌷ PROG ⌷ key.

                 This will cause the unit to go into the program mode and resets the Alpha to
                 the beginning of your message. A cursor will appear in the center position
                 indicating that BIG characters have been selected.

STEP 2.   Position the cursor to the desired line for character entry. Depress and hold
                 the ⌷ SHIFT ⌷ key and depress the CURSOR function (the "B" key). Repeated
                 depressions of the ⌷ CURSOR ⌷ key will move the cursor from the middle (BIG)
                 position to the top (SMALL) position to the bottom (SMALL) position and then
                 back to the middle position.

                 The cursor position select key need only be pressed when you are selecting
                 a line position different from the previous one.

STEP 3.   Depress one of the display mode keys described in Section 4.

                 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 is depressed, the
                 display will show an abbreviation of the chosen mode. These mode
                 abbreviations will only appear during message entry and will not appear
                 during normal running of the message. For example, when the ⌷ HOLD ⌷ key is
                 depressed, a "HLD" appears indicating the hold mode.

STEP 4.   Enter the message that is to be displayed in that mode.

                 The message can also contain any of the Message Controls (SPEED, TIME,
                 WIDE/SLIM) described in Sections 4 and 6.

STEP 5.   Repeat Steps 2, 3 and 4 until all the desired messages have been entered.

STEP 6. Depress the ☐⬝ key.

The unit will now prompt you, "END MESSAGE HERE? Y/N" (Yes or No). If you have completed your message entry press either the "Y" key or press the ☐RUN☐ key again. Your message will now run in the order it was entered.

Pressing the "N" key in response to the prompt will place you back in your message where you left off and you can continue entering messages.

CHARACTER SETS

The ☐CURSOR☐ key selects the position your message will appear on the display. Repeated depressions of the ☐CURSOR☐ key moves the cursor from position to position on the right hand side of the display. When the cursor is in the middle position, big (4.5 inch) characters are selected. When the cursor is on the top line or bottom line, small (2.0 inch) characters are selected.

CHARACTER WIDTH

Normal (slim) and wide characters are available for both 2.0" and 4.5" characters. You can alternate between character widths as often as you wish during your message. When you wish to change from one character width to the other, simply press the ☐WIDE☐ key. A "wid" or "slim" will be displayed. The unit will automatically enter the width opposite of the currently selected width. After pressing the ☐WIDE☐ key use the ☐SELECT☐ key to select the desired width. The same character width remains selected until a new width is entered. You can not select a new character width when the cursor is on the display (a display mode must be entered).

SELECTING UPPER/LOWER CASE CHARACTERS

You can switch between upper and lower case characters at any time in your message by depressing and holding the ☐SHIFT☐ key and pressing the ☐CAPSLOCK☐ key.

DISPLAYING AND SETTING THE TIME

TIME Display in a Message

To enter the Time-of-day into your message, simply depress and hold the ☐SHIFT☐ key and press the ☐TIME☐ key. You must enter a display mode before entering the **TIME.**

TIME Setting

To set the time press the ☐**PROG**☐ key. The cursor will be displayed on the right hand side of the display. Now, depress and hold the ☐**SHIFT**☐ key and press the ☐**TIME**☐ key. The current time will now be displayed. Use the ☐**H**☐ key to increment the hours and the ☐**M**☐ key to increment the minutes. After the correct time has been entered press the ☐**RUN**☐ key and your message will resume running.

> **NOTE:** Your message must be running before you press the ☐**PROG**☐ key to set the time.

The SPECIAL key

The user can program additional functions and characters with the use of the ☐**SPECIAL**☐ key. When the ☐**SPECIAL**☐ key is pressed the word "Special" is displayed in the lower left hand corner of the display. Press the ☐**SPECIAL**☐ key again to get out of the special mode. Once in the Special mode you have several functions and characters available to you. They are:

SCROLL MODE Pressing the ☐**ROTATE**☐ key when in the Special mode will enter the **SCROLL** display mode. A "SCR" will appear on the bottom line on the right hand side of the display. You may now enter your SCROLL message. See Section 5 for message entry instructions.

Half Space Pressing the ☐**SPACE**☐ key when in the Special mode will enter a space that is half the width of a standard space character into your message.

Cent Sign Pressing the ☐ **I** key when in the Special mode will enter a ¢ into your message.

<CR> Pressing a period (".") when in the Special mode will enter a carriage return character into your message. When programming a message in the SCROLL mode, entering a carriage return will force a new line to begin at that point in your Scroll message.

GET STRING   Pressing the [⎓ 6 ⎓] key when in the Special mode will enter a GET ASCII STRING command into your message. The word "GET" will be displayed. After a GET STRING command has been entered you must enter a string number (0 - 9). When a GET STRING is encountered in the RUN mode the string data will be inserted into your message. Actual string data can only be programmed via the serial interface.

ENTER ASCII   Pressing the [⎓ A ⎓] key when in the Special mode places you in the ASCII entry mode and the word "ASCII" will be displayed on the lower left hand corner of the display. You must now enter the 2 digit Hex code for the character you desire. See Appendix A for the complete ASCII character set.

Section 8

MESSAGE REVIEWING

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

> Note that in order to review your message, you must have first depressed the [⎓ RUN ⎓] key after your last message has been entered.

The following procedure allows you to review your message:

STEP 1. Depress the [⎓ PROG ⎓] key. Your message will stop moving. The unit is now at the beginning of your message.

STEP 2. Depress and release the [⎓ ADV ⎓] key. Note that the first display mode you entered in the unit will now be displayed. Each time the [⎓ ADV ⎓] key is depressed, the next sequential character that you entered will be displayed. If you continuously hold down the [⎓ ADV ⎓] key, the unit will automatically scan through the messages you have entered. The longer you hold down the key, the faster the unit will scan. To stop the scan, simply release the key.

STEP 3. Once you have started reviewing a message, you must always advance through all of your messages before depressing the [⎓ RUN ⎓] key.

STEP 4. After the Alpha stops at the end of your message, depress the [⎓ RUN ⎓] key to activate operation of the Alpha.

MESSAGE EDITING

There are 7 editing functions which can be used to simplify the task of modifying or correcting your message. They are:

DELETE: If you are in the middle of your message and you hit the ☐ᴅᴇʟᴇᴛᴇ key, the right most character or mode of the current position (Big, top or bottom) will be deleted.

INSERT: To Insert display modes, characters or messages simply press the ☐ɪɴꜱᴇʀᴛ key. The word "Insert" will appear in the upper left hand corner of the display. All display modes and characters entered while in the Insert mode will be inserted after the last character on the display. You will remain in the Insert mode until one of the following keys is pressed: ☐ɪɴꜱᴇʀᴛ, ☐ᴀᴅᴠ, ☐ʙᴀᴄᴋ, ☐ᴅᴇʟᴇᴛᴇ, ☐ᴘʀᴏɢ or ☐ʀᴜɴ.

BACK: This key is used to backspace through your message without altering it.

ADV.: This key is used to advance through your message without altering it.

APPEND: This key is used when you wish to jump to the end of your message. Before pressing this key, you must have entered a complete message and that message must have been in the run mode.

PROG: Depressing this key will cause the unit to return to the beginning of the message with the cursor in the Big position.

AUTO-ADVANCE: Press the ☐ꜱᴘᴇᴄɪᴀʟ key and then press the ☐ᴀᴅᴠ key.

This function will rapidly advance through your message automatically until you hit any key on the keyboard, at which point it will stop advancing. You may then use the ADVANCE and BACKSPACE functions to locate the exact position of your desired change. AUTO-ADVANCE will always begin at your current position in the message and, if a key is not hit, will stop at the end of your message.

The AUTO-ADVANCE function is very useful to quickly scan through long messages.

MESSAGE CAPACITY

Your ALPHA ES unit has the capacity to display messages totaling more than 7,500 characters, expandable to more than 15,500 characters.

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 message.

Example 1 - Small Characters - Hold, Rotate, Flash

STEP 1. Depress ⬚PROG key. A 5 dot cursor will appear in the center of the rightmost column each time you depress the ⬚PROG key and will place you at the beginning of your current message.

STEP 2. While holding down the ⬚SHIFT key, depress ⬚CURSOR key. The cursor will be positioned on the top row. This indicates that the message you are about to enter will appear on the top row.

STEP 3. Depress ⬚HOLD key. A (HLD) will now be displayed on the top row indicating that you are in the HOLD mode.

STEP 4. Depress ⬚H, ⬚E, ⬚L, ⬚L, ⬚O keys. The display will be showing (HLD) HELLO.

STEP 5. While holding down the ⬚SHIFT key, depress ⬚CURSOR key. The cursor will be positioned on the bottom row. This indicates that the message you are about to enter will appear on the bottom row.

STEP 6. Depress the ⬚ROTATE key. A (ROT) will now be displayed on the bottom row indicating that you are now in the ROTATE mode.

STEP 7. Depress the ⬚SHIFT and ⬚SPEED keys, and then ⬚SELECT key. Choose your speed 1-5.

STEP 8. Depress ⬚I, ⬚SPACE, ⬚A, ⬚M, ⬚SPACE, ⬚Y, ⬚O, ⬚U, ⬚R, and then depress ⬚ROTATE key to automatically rotate the message off the screen to the left.

STEP 9. Depress and hold the ⬚SHIFT key and then depress the ⬚FLASH key. A (FLS) will now be displayed indicating that you are in the FLASH mode.

STEP 10. Depress [SHIFT] and [SPEED] keys, then [SELECT] key to choose your flashing speed. Depress [A], [L], [P], [H], [A], [SPACE], [E], [S], [SPACE], [S], [E], [R], [I], [E], [S], [SPACE], [U], [N], [I], [T] keys.

STEP 11. Depress [RUN] key. The top line of the display will hold the word "HELLO," and "I AM YOUR" will rotate on the bottom line followed by "ALPHA ES UNIT" being flashed.

Example 2 - Small Characters - Scroll, Roll Modes, Upper and Lower Case, Wide Characters.

STEP 1. Depress the [PROG] key. The unit will stop displaying your message and will go to its beginning to wait for your next command. Now we will program over the current message.

STEP 2. Depress the [SPECIAL] and [ROTATE] keys. A (SCR) will appear on the screen indicating that you are in the SCROLL mode.

STEP 3. Depress [M], [E], [S] [S], [A] [G], [E] [SPACE] keys.

STEP 4. While holding down the [SHIFT] key, depress the [1] key, then [SPACE], [M], [SHIFT] & [CAPSLOCK], [E], [S], [S] [A], [G], [E], [SPACE], [SHIFT] & [2], [SPACE], [SHIFT] & [WIDE], [SHIFT] & [CAPSLOCK], [M], [SHIFT] & [CAPSLOCK], [E], [S], [S], [A] [G], [E], [SPACE], [SHIFT] & [3] keys.

STEP 5. Depress and hold the [SHIFT] key. While holding the [SHIFT] key, depress the [CURSOR] key until the cursor is positioned on the top line. Depress the [ROLL] key. A (UP) will appear on the top line of the display with an arrow pointing up. Now depress the [SELECT] key to choose the direction you desire this line to roll. Depress [SHIFT] & [CAPSLOCK], [M], [E], [S] [S], [A], [G], [E], [SPACE], [SHIFT], [4] keys.

STEP 6. While holding down the [SHIFT] key, depress the [CURSOR] key to position the cursor on the bottom row. Depress the [ROLL] key. The word (UP) with an arrow pointing up will appear on the bottom line of the display. Depress the [SELECT] key to choose your roll direction. Depress [SHIFT] & [WIDE], [M], [E], [S], [S], [A], [G], [E], [SPACE], [SHIFT], [5] keys.

STEP 7. Depress the [RUN] key. The messages, "MESSSAGE 1," "Message 2," and "Message 3" will scroll up from the bottom of the display. "MESSAGE 4" and "MESSAGE 5" will roll into the display.

Example 3 - Big Characters - Hold, Rotate, Flash, Wipe Modes.

STEP 1. Depress the ☐ PROG ☐ key. The unit changes to the big character mode with the cursor being located in the middle of the rightmost column indicating this. Also, remember that we are now at the beginning of our current message. Now we will enter a new message and write over, wiping out the current message.

STEP 2. Depress ☐ HOLD ☐ key. A (HLD) will appear on the display indicating HOLD mode. Depress ☐ H ☐, ☐ I ☐ keys.

STEP 3. Depress the ☐ ROTATE ☐ key. A (ROT) will appear indicating ROTATE mode. Depress ☐ I ☐, ☐ SPACE ☐, ☐ SHIFT ☐ & ☐ CAPSLOCK ☐, ☐ A ☐, ☐ M ☐, ☐ SPACE ☐, ☐ Y ☐, ☐ O ☐, ☐ U ☐, ☐ R ☐, and ☐ ROTATE ☐ keys.

STEP 4. While holding down the ☐ SHIFT ☐ key, depress the ☐ FLASH ☐ key. A (FLS) will appear indicating FLASH mode. Depress ☐ SHIFT ☐ & ☐ SPEED ☐, ☐ SELECT ☐, ☐ SHIFT ☐ & ☐ CAPSLOCK ☐, ☐ A ☐, ☐ L ☐, ☐ P ☐, ☐ H ☐, ☐ A ☐ keys.

STEP 5. While holding down the ☐ SHIFT ☐ key, depress the ☐ WIPE ☐ key. A (WI) will appear with an arrow pointing up, depress the ☐ SELECT ☐ key to choose your wiping direction. Depress ☐ SHIFT ☐ and ☐ SPEED ☐ keys the ☐ SELECT ☐ key to choose your desired speed. Depress ☐ E ☐, ☐ S ☐, ☐ SPACE ☐, ☐ M ☐, ☐ O ☐, ☐ D ☐, ☐ E ☐, ☐ L ☐ keys.

STEP 6. Depress the ☐ RUN ☐ key to activate the unit. The unit will hold "HI", then rotate "I am your". The word "ALPHA" will then flash followed by the words "ES MODEL" wiping onto the screen.

Example 4 - Message Alteration - Advance, Delete, Insert, and Back Editing Modes.

STEP 1. Depress the ☐ PROG ☐ key. We are now at the beginning of the current message.

STEP 2. Depress the ☐ ADV ☐ key only three times so that "(HLD) HI" appears at the right hand side of the display.

STEP 3. While holding down the ☐ SHIFT ☐ key, depress the ☐ DELETE ☐ key. This removes the letter I. The display now reads "(HLD) H".

STEP 4. Depress the ☐ INSERT ☐ key. In the upper left hand corner the word "INSERT" will be illuminated on the display indicating that the INSERT mode has been entered.

STEP 5. Depress the ⌷ E ⌷ key. An E has now been inserted and will appear at the rightmost position. Depress ⌷ L ⌷, ⌷ L ⌷, ⌷ O ⌷ keys. "HI" has now been replaced by "HELLO". The rest of the message has not been changed.

STEP 6. Depress and hold down the ⌷ ADV ⌷ key. The unit will now advance to the end of all your messages and stop.

> Note that it is important to remember that in any 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.

STEP 7. Depress the ⌷ RUN ⌷ key. The word HI has been replaced with HELLO and the rest of your message has not been altered.

Message Examples - Trailing Commands

Trailing commands are modes that may be entered at the end of a particular message before it disappears from the display screen.

Example 1 Depress ⌷ PROG ⌷, ⌷ ROTATE ⌷, ⌷ H ⌷, ⌷ I ⌷, ⌷ ROTATE ⌷, ⌷ RUN ⌷, ⌷ Y ⌷ keys. Since the last mode is a Rotate with no message data, it will rotate the message off of the display.

Example 2. Depress ⌷ PROG ⌷, ⌷ ROLL ⌷, ⌷ H ⌷, ⌷ I ⌷, ⌷ ROLL ⌷, ⌷ RUN ⌷, ⌷ Y ⌷ keys.

Example 3. Depress ⌷ PROG ⌷, ⌷ SHIFT ⌷ & ⌷ CURSOR ⌷ (top) , ⌷ SHIFT ⌷ & ⌷ WIPE ⌷, ⌷ SELECT ⌷ (down) , ⌷ T ⌷, ⌷ H ⌷, ⌷ A ⌷, ⌷ I ⌷, ⌷ L ⌷, ⌷ I ⌷, ⌷ N ⌷, ⌷ G ⌷, ⌷ SHIFT ⌷ & ⌷ WIPE ⌷ , ⌷ SELECT ⌷ (left), ⌷ SHIFT ⌷ & ⌷ SPEED ⌷, ⌷ SELECT ⌷ (SP1) , ⌷ SHIFT ⌷ & ⌷ CURSOR ⌷, ⌷ ROLL ⌷ , ⌷ SELECT ⌷ (down) , ⌷ SHIFT ⌷ & ⌷ SPEED ⌷, ⌷ SELECT ⌷ (SP5) , ⌷ C ⌷ , ⌷ O ⌷, ⌷ M ⌷, ⌷ M ⌷, ⌷ A ⌷, ⌷ N ⌷, ⌷ D ⌷, ⌷ S ⌷, ⌷ ROLL ⌷, ⌷ SELECT ⌷ (right) , ⌷ SHIFT ⌷ & ⌷ SPEED ⌷ , ⌷ SELECT ⌷ (SP1) , ⌷ RUN ⌷, ⌷ Y ⌷ keys.

Example 4. Depress ⌷ PROG ⌷, ⌷ HOLD ⌷ , ⌷ SHIFT ⌷ & ⌷ TIME ⌷ , ⌷ SHIFT ⌷ & ⌷ WIPE ⌷ , ⌷ SHIFT ⌷ & ⌷ SPEED ⌷ , ⌷ SELECT ⌷ (SP5) , ⌷ ROLL ⌷, ⌷ SELECT ⌷ (down) , ⌷ SHIFT ⌷ & ⌷ TIME ⌷ , ⌷ ROLL ⌷ , ⌷ SELECT ⌷ (left) , ⌷ SHIFT ⌷ & ⌷ SPEED ⌷, ⌷ SELECT ⌷ (SP1) , ⌷ ROLL ⌷ , ⌷ SELECT ⌷ (right) , ⌷ SHIFT ⌷ & ⌷ TIME ⌷ , ⌷ ROLL ⌷ , ⌷ SELECT ⌷ (right) , ⌷ SHIFT ⌷ & ⌷ SPEED ⌷ , ⌷ SELECT ⌷ (SP5) , ⌷ RUN ⌷ , ⌷ Y ⌷ keys.

Example 5. Depress ⌷ PROG ⌷, ⌷ ROTATE ⌷ , ⌷ SHIFT ⌷ & ⌷ SPEED ⌷, ⌷ SELECT ⌷ (SP1) , ⌷ H ⌷, ⌷ E ⌷, ⌷ L ⌷, ⌷ L ⌷, ⌷ O ⌷, ⌷ ROTATE ⌷, ⌷ SHIFT ⌷ & ⌷ SPEED ⌷, ⌷ SELECT ⌷ (SP5) , ⌷ SPACE ⌷, ⌷ SPACE ⌷, ⌷ SPACE ⌷, ⌷ SPACE ⌷, ⌷ SPACE ⌷, ⌷ HOLD ⌷, ⌷ SHIFT ⌷ & ⌷ FLASH ⌷, ⌷ SHIFT ⌷ & ⌷ SPEED ⌷, ⌷ SELECT ⌷ (SP1) , ⌷ SHIFT ⌷ & ⌷ WIPE ⌷, ⌷ SELECT ⌷ (right) , ⌷ RUN ⌷, ⌷ Y ⌷ keys.

The combination of Trailing Commands are almost endless if you use your imagination.

MESSAGE RETENTION

As long as the Alpha is plugged into a powered A.C. outlet, 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 typically 1 month. When power is returned to the unit, it 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 long durations. The shorter the amount of time the unit is powered results in a shorter message retention time.

Section 13 _____

MESSAGE HINTS

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

1) To put a break between messages, simply enter the FLASH or HOLD mode and one space. This will cause a 2 or 3 second blank period on the display.

2) Arrows can be generated by using the "<" or ">" in conjunction with "-" to display "<--" or "-->".

3) You may want to make the top line HOLD while the bottom line ROTATES a message or visa versa.

4) Place several periods at the end of your rotating message, and then rotate it off the screen to avoid losing your customer's attention.

5) Plan your message ahead of time by writing it down in a two line format prior to entering it into the unit.

6) Place the unit towards the greatest traffic flow or at strategic locations within your facility. Keep the messages short and to the point - based upon the specific application. Change the messages frequently to best utilize the capabilities of the Alpha.

7) Combine the Big characters with the small characters to draw attention to the message.

8) Use Trailing Commands to create interesting visual effects. See message example section.

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SOUND CONTROL

Key Tone/Speaker Enable

The Alpha ES has the capacity of generating a tone when any key except the [SHIFT] key is depressed. The unit will power up with the key tone disabled. If the tone is desired, depress and hold the [SHIFT] key and at the same time depress the [RUN] key. This turns on the tone. To turn the tone back off, depress the [SHIFT] and [RUN] keys again. This can be done any time you are keying in your message.

OPTIONAL CHIP INSERTION AND REMOVAL

Graphic scenes and additional modes of operation may be added to any standard message by using optional chips. These Optional chips are changeable, so you can easily add new features to your Alpha ES unit. Use the following procedure to insert and remove optional 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 Chips.

STEP 1.   Remove the power from the Alpha unit.

STEP 2.   Remove the Access Cover from the back of the Alpha unit. This is accomplished by grabbing the access door on the side latches with your hand, pressing the latches inwards and pulling out the cover.

When the Access Cover has been removed, you will see the location of the chip(s). Your Alpha ES unit has room for 2 chips. The chips have a colored dot on them which should be matched to the dot color inside the chip socket. See Figure 7.
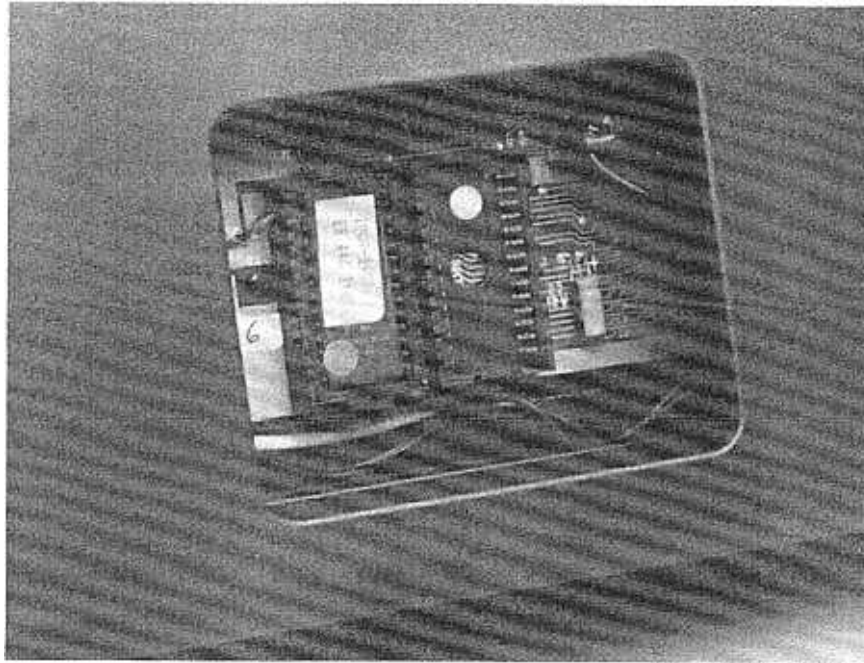
Figure 7

STEP 3. The chip(s) 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 motion to remove the chip. See Figure 8.
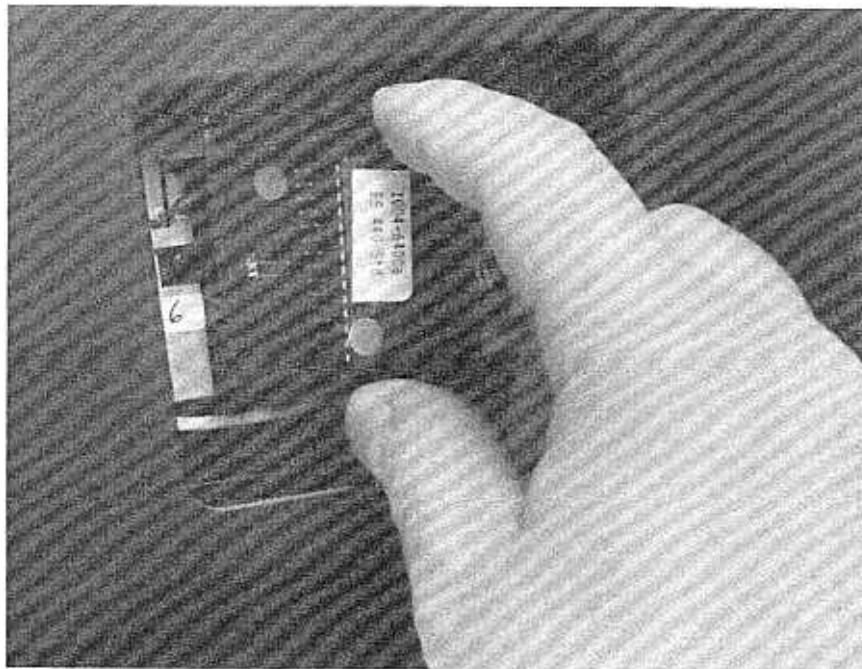

Figure 8

STEP 4. The new chip(s) may now be inserted into the appropriate socket(s). Remember that the color code dot on the chip must match the color code dot in its correct socket. The chip assembly is keyed so that it can fit into a socket only one way. The chip assembly should be oriented so that the tab with 2 holes in it is on top.

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

STEP 5. Replace the Access Cover.

STEP 6. Reapply power. The unit is now ready for message entry.

TROUBLE SHOOTING

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 In-line transformer connector is properly inserted into the right hand side of the Alpha. (See Section 2) 3. Press the PROG key first, then a mode key. 4. Check to see that the chip(s) are securely seated in the socket(s). (See Section 15) 5. In case of power failure, especially during electrical storms, unplug the unit and let it sit for a few seconds. Then reapply the power to the Alpha. 6. Contact your local ALPHA dealer for further help.
Information displayed appears erratic or incorrect.	1. Check to see that the chip(s) are securely seated in the socket(s). (See Section 15) 2. Contact your local ALPHA dealer for further help.
Keyboard does not operate properly.	1. Check to see that the keyboard connector is properly inserted into the right hand side of the Alpha ES. (See Section 2) 2. Make sure that the PROG key has been depressed prior to entering any information into the unit. 3. Contact your local ALPHA dealer for further help.

SPECIFICATIONS

	ALPHA 440	**ALPHA 460**	**ALPHA 480**
Weight:	27.4 lbs.	32.9 lbs.	41.1 lbs.
Dimensions -			
Length:	39.4"	56.2"	73.0"
Width:	4.0"	4.0"	4.0"
Height:	8.0"	8.0"	8.0"
Display Length:	33.5"	50.25"	67.0"
Display Height:	4.5"	4.5"	4.5"

Character Array -	
2 inch (Small)	5 x 7 dot matrix
4.5 inch (Big)	9 x 15 dot matrix

Characters Displayed			
2 inch (Small)	40 min.	60 min.	80 min.
4.5 inch (Big)	10 min.	15 min.	20 min.

Character Sets:	Slim and Wide, upper and lower case.
Operating Modes:	Rotate, Hold, Flash, Time, Wipe Up, Wipe Down, Wipe Left, Wipe Right, Roll Up, Roll Down, Roll Left, Roll Right, Scroll, Speed Control, Automatic Centering
Editing	Insert, Delete, Append, Backspace, Advance, Auto-Advance
Memory:	Over 7,500 characters - standard Expandable to over 15,500 characters
Memory Retention:	96 hours minumum - solid state - 1 month typical
Power:	80 Watts - In-Line Transformer (Alpha 440 & 460) 100 Watts (Alpha 480)
Power Cord:	10 feet
Keyboard:	Hand-held detachable - standard
Keyboard Cable:	6 feet
Speakers:	2 speakers - 0.5 Watt
Serial Interface:	RS485 Multi-drop differential RS232 interface optional
Operating Temperature:	0 to 49 C 32 to 120 F
Limited Warranty:	One year parts and labor. Return to factory for repair or replacement.

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, Inc. 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:

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

within fifteen days from the date of purchase.

Exclusions: This warranty does not apply in the event of any misuse or abuse of the products, 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 your dealer or to AMS. Please call your local dealer to receive a return merchandise number before sending your Alpha unit back to AMS for servicing.

APPENDIX A - ASCII Character Set

CODE-CHAR	CODE-CHAR	CODE-CHAR
20 - SP	40 - @	60 - `
21 - !	41 - A	61 - a
22 - "	42 - B	62 - b
23 - #	43 - C	63 - c
24 - $	44 - D	64 - d
25 - %	45 - E	65 - e
26 - &	46 - F	66 - f
27 - '	47 - G	67 - g
28 - (	48 - H	68 - h
29 -)	49 - I	69 - i
2A - *	4A - J	6A - j
2B - +	4B - K	6B - k
2C - '	4C - L	6C - l
2D - -	4D - M	6D - m
2E - .	4E - N	6E - n
2F - /	4F - O	6F - o
30 - 0	50 - p	70 - p
31 - 1	51 - Q	71 - q
32 - 2	52 - R	72 - r
33 - 3	53 - S	73 - s
34 - 4	54 - T	74 - t
35 - 5	55 - U	75 - u
36 - 6	56 - V	76 - v
37 - 7	57 - W	77 - w
38 - 8	58 - X	78 - x
39 - 9	59 - Y	79 - y
3A - :	5A - Z	7A - z
3B - ;	5B - [	7B - {
3C - <	5C - /	7C - |
3D - =	5D -]	7D - }
3E - >	5E - cent	7E - ½ SP
3F - ?	5F - _	

Special Characters

CODE-CHAR
08 - Heart
09 - Spade
0A - Club
0B - Diamond
0C - R. Arrow
0D - Return
0E - L. Arrow
0F - Slim "$"