

# Advertiser Model ADT 3100

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## I. Introduction

Congratulations on your purchase of Advertiser ADT#3100 Visual Communication System from Cybernetic Data Products.

When properly utilized with frequently changing messages, your #3100 will help to create tremendous viewer interest and, more importantly, a higher level of impulse response. The many different presentation modes and enhancements have all carefully designed to capitalize on the old adage that "motion and lights attract".

This operations manual has been written for the average layman. We have made every effort to emphasize the simplicity of programming your #3100 and suggest you carefully read this manual to learn its proper use.

Once again congratulations on your new acquisition and welcome to the world of innovative advertising.

*MACHINE DATA PLATE:ADT3102 / 32 30 01 / SS-20 Programmer KEYBOARD DATA PLATE:KB20 / 31 80 50*

*Display is capable of 7 high by 96 wide (672) LED pixels*

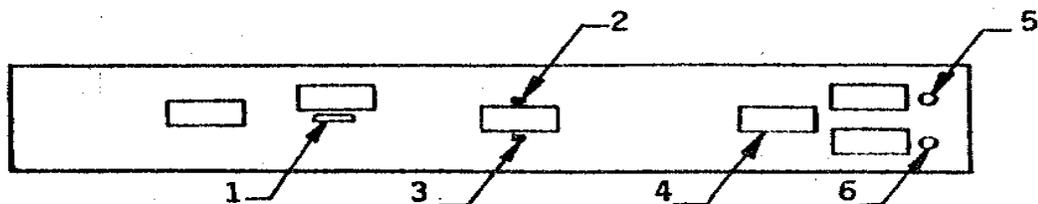
## II. Setting up Your Advertiser

When your ADT#3100 arrives, you should check it immediately to make sure that all equipment and accessories ordered have been included. In addition to your display and KB20 programming keyboard, you should also have your operations manual, warranty card and keyboard overlay.

Carefully unpack your equipment saving the boxes. Place the unit and keyboard in front of you along with the manual and the overlay. Attach the overlay to the keyboard above the top row of keys, as it will serve as an excellent reference in programming your unit.

### A. The Display

Your Advertiser ADT#3100 display has a back panel that looks like this:



1. Keyboard Connector
2. Display Switch
3. Master Power Switch

4. Serial Number Label
5. Fuse Holder
6. A.C. Power Cord

The front panel of your ADT3100 contains a red acrylic filter that comes to you with a protective plastic shield. This should be carefully removed from the corners by pressing in gently on the acrylic at the top and bottom while removing.

The Model ADT3100 also comes with a rechargeable battery for memory backup that will typically protect your messages in the event of loss of power to the unit for at least 3 months.  
*NOT ON MY UNIT!*

## B. Turning on the Unit

Carefully follow these steps before programming your MODEL ADT#3100:

1. Plug the A.C. power cord from the display into a 120 volt outlet\*
2. Plug your keyboard cable into the SS20 connection on the back of your display
3. Turn the Master Switch and Display Switch to the “ON” positions. Display will then read “UNIT OPERATIONAL”
4. If unit has been unpowered for > 3 months you will have to clear memory to bring up display

**\*WARNING: DO NOT USE A TWO PRONG ADAPTOR AS THE LACK OF GROUND MAY CAUSE YOUR UNIT TO MALFUNCTION.**

## C: The Keyboard

The KB20 keyboard resembles an electric typewriter and has a similar “light touch”.

Additionally, several keys help you to access memory in the unit or command your message to perform special functions. These special keys are listed below, along with their basic functions:

**RED (R):** Used to stop message from traveling and places the unit in the programming or editing mode

**GREEN (G):** Makes the message run

**YELLOW (Y):** Used to set memory functions. Also used to enter the graphics mode, clear memory, question memory available etc.

**BLUE (B):** Controls and commands special presentation enhancements to modify your messages

**ALPHA LOCK:** Functions like the SHIFT LOCK key on a typewriter except that it only effects the 26 alpha keys. All other two-function keys must utilize the SHIFT key

**HOME:** Utilized in conjunction with the multiple message format. It creates the “ “ which precede the multiple message labelling

**REPT:** A key designed as a time saver by repeating any keystroke without retyping the key repeatedly. To use, simply press and hold down the REPT key and press any other key. The function will be repeated until either key is released

**DEL:** Used with the SHIFT key to delete or remove incorrect or unwanted characters from the memory

**RETURN:** This key is depressed after utilizing the YELLOW key and leaving the programming mode. RETURN brings you back to the exact point you were at prior to entering the YELLOW function

### **ARROW KEYS:**

← Similar to a backspace key as it allows you to move backward through memory for positioning purposes to edit messages, add to memory, or correct errors

↑ Takes you to the start of memory

↓ Takes you to the end of memory

→ A forward advance key to move through the memory to edit, add to memory, or correct errors

In addition, these four arrow keys are used in creating graphics and deleting memory. These functions will be covered in detail in later sections of this manual.

## III. Memory Functions – The YELLOW Key

Memory functions are entered or accessed by pressing and releasing YELLOW followed by a second key. This allows you to store information in the #3100's memory for recall at a future time. These functions will be covered in detail in later sections of this manual.

In our examples throughout this manual these symbols and notations must be remembered:

1. Function keys (YELLOW, BLUE, RED and GREEN) will be shown as an underlined single letter:

Y = YELLOW key    B = BLUE key  
G = GREEN key    R = RED key

2. Whenever the YELLOW key is pressed, the display will show "Es". This acknowledges that you have "Escaped" or exited the programming mode
3. Whenever RETURN is pressed after completing a YELLOW function "Cn" will show on the display signifying for you to "Continue"

## A. Scan Speed

The speed at which the message runs across the display is controlled thru the keyboard. The fastest speed is 0 and the slowest speed is 9. You will find that you will utilize the 1 and 2 speeds more than the others.

1. Press Y and then S. Display will show: Es SPEED=
2. Enter the number (2). Display shows: Es SPEED=2

## B. Memory Available

Our Memory Available function allows the user to address a character counter in the computer to determine how much memory is available for programming. This will overcome the problem of running out of memory in the middle of a message.

1. Press Y and then M. Display will show: Es 1550 FREE Cn

## C. Multiple Message

Multiple Message capability allows you to enter several messages into memory and recall them manually later. Messages are generally identified by a two digit number (ex: 01, 02 etc.)

1. Press Y and then R. Display will show: Es RUN-
2. Enter two-digit message identifier (01). Display shows: Es RUN-01

## D. Graphics

The Graphics Function allows you to create or draw pictures on your Advertiser ADT#3100 to enhance your message presentation. When in the graphics mode you possess dot-by-dot control over the 7 high by 96 wide display matrix.

As referenced earlier, the four cursor arrows right and left of the space bar will be utilized to move and position the blinking cursor for selection and will be covered in detail in Section VII of this manual.

1. Press Y and then G. Display shows: "●" in the bottom row and left most column blinking on and off

## E. Clear Memory

The Clear Memory capability is provided to allow the user to remove all information in the unit's memory thru the keyboard. This can also be accomplished by turning off both the Master power switch and the Display switch (this is not always convenient if the display is mounted on a shelf

or in some other remote fashion). We have also provided a protection against inadvertently clearing memory by making this a two-step process.

1. Press Y and then C. Display shows: Clear Memory(Y/N)
2. Press Y for Yes or N for No. Display shows: DONE Cn

## IV: Programming Functions

Having set your scan speed, you are now ready to begin programming and enter your message. Assuming you have pressed the RETURN key your display should show: START OF MEMORY **↵**

We will start with a basic message and then, thru programming enhancements, modify it for effect. Let us type in the following message after first pressing down the ALPHA LOCK:

THIS IS THE ADVERTISER MODEL #3100  
FROM CYBERNETIC DATA PRODUCTS.

Now press G and your message should travel from right to left and repeat itself.

Congratulations! You have just entered your first message on your Advertiser. Everything else we will cover will be equally simple if you follow closely with the instructions in this manual.

### A. Blink

The first enhancement or special effect we are going to add to our message is the "BLINK" function. We will alter our existing copy with a command to have the word "ADVERTISER" blink on and off as it travels across the display.

B = BLINK U = UNBLINK

1. Press R key. Display stops
2. Press **↑** key. Display shows: START OF MEMORY **↵**
3. Press **→** key. Display shows: TART OF MEMORY **↵**T
4. Repeat step 3 until display shows: RY **↵**THIS IS THE A

\*Note: Since the A is the first letter in the word ADVERTISER, we must now back it off the screen so that our blink command PRECEDES the word.

5. Press **←** key. Display shows: ORS **↵**THIS IS THE
  6. Press and hold down B
  7. Press letter B. Display shows: RY **↵**THIS IS THE "B" (The " " signifies a blinking letter)
  8. Press **→** key until ADVERTISER is on the display
  9. Press and hold B
  10. Press letter U. Display shows: HE "B"ADVERTISER"U"
  11. Press G
- When the message runs ADVERTISER will be blinking on and off

## B. Expand

The EXPAND function is one which adds tremendous visual impact to your message. It is often referred to as "Double Stroke" because it doubles the width of each character. One note of caution to remember for later when we are in the Impulse Modes is that an eight-letter word becomes 16 characters wide and fills the screen. Any word of nine or more letters will become wider than the display itself and cannot be used.

E = EXPAND C = CONDENSE

1. Press R key. Display stops
2. Use the **←** **→** keys to position your display so that it appears as follows E "B" ADVERTISER "U" "E"
3. Press and hold B key
4. Press letter E. Display shows: "B" ADVERTISER "U" "E"
5. PRESS **→** key until MODEL #3100 is on the display
6. Press and hold B
7. Press letter C. Display shows R "U" "E" MODEL #3100 "C"
8. Press G

When the message runs, ADVERTISER will be blinking on and off and MODEL #3100 will be expanded doublewide.

## C. Pause

The PAUSE function allows us to make our message wait for added impact. Our message is held on the screen for a length of time determined by the number of "W's" entered.

W = WAIT or PAUSE

1. Press R key. Display stops
2. Use **←** **→** keys to position your message so that display shows: FROM CYBERNETIC
3. Press and hold B
4. Press letter W twice. Display shows: OM CYBERNETIC"WW"
5. Press G key

This time your message blinks, expands, and the words FROM CYBERNETIC pause for about one second before travelling off.

## D. Impulse Modes

The Impulse Modes are meant to place further emphasis on your message presentation by illuminating the screen on a 16-character frame-by-frame basis.

1. Scroll up/down. This motion is similar to the method in which the credits of a movie are displayed scrolling or rolling up and down
2. Wipe left/right. This motion is very much like unrolling a carpet. It has the effect of spelling on the characters one at a time from left to right or right to left
3. Wipe down/up. This motion is slightly different from the scroll down/up function
4. Interlace. This motion scrambles the LEDs then “walks” them to the right to form the next frame of the message
5. Disappear. This is used with any of the other presentation modes and makes the message frame vanish after it comes on to the display in the appropriate manner
6. Travel off. Just like disappear, this function is used with the other modes. After coming on to the display, the message frame will travel off
7. Unveil. This presentation mode creates a curtain effect much like the opening of curtains on a stage from the center out
8. Flash on/off. This function is widely used by banks on their outdoor message changers where they display time and temperature

Each of these modes is entered into the display by placing the following number controls within a parenthesis preceded by a blinking (or BLUE) "I"

- “I” (1) Scroll down
- “I” (2) Scroll up
- “I” (3) Wipe on left/right
- “I” (4) Wipe on right/left
- “I” (5) Wipe down
- “I” (6) Wipe up
- “I” (7) Interlace
- “I” (8) Disappear
- “I” (9) Travel off
- “I” (/) Unveil

These ten presentation modes work extremely well in calling viewer attention to your displayed messages. They can be used individually or can be combined in some format.

Combining several modes and see what we mean.

- a. Press R key. Display Stops
- b. Press ↑ key. Display shows: START OF MEMORY **↳**
- c. Press and hold B key
- d. Press I key. Display shows START OF MEMORY **↳** "I"
- e. Insert left parenthesis
- f. Press /37. Display shows: OF MEMORY **↳** "I"/37

- g. Insert right parenthesis
- h. Press **↑** key
- i. Press **G**

Your message will now unveil, wipe on left to right, interlace, and finally automatically center each frame on the display.

## E. Manual Centering

Manual Centering is a feature that allows you to select Key words and phrases you feel should be displayed by themselves for added visual effect. To show you how this works we will modify our current messages. The existing six frames now appear as follows:

THIS IS THE  
ADVERTISER  
MODEL  
#3100 FROM  
CYBERNETIC DATA  
PRODUCTS

Only two changes seem needed: We should separate "#3100" and the "FROM" then isolate "CYBERNETIC" from "DATA PRODUCTS".

1. Press **R** key. Display stops
2. Use **←** **→** keys to position display so that it appears as follows: "U" "E" MODEL #3100 "C"
3. Press and hold **B** key
4. Press letter X. Display shows: "E" MODEL #3100 "C" "X"
5. Press **→** until FROM comes onto display
6. Press and hold **B** key
7. Press letter X. Display shows: EL #3100 "C" "X" FROM "X"
8. Press **→** until CYBERNETIC comes onto the display
9. Press and hold **B** key
10. Press letter X. Display shows; ROM "X" CYBERNETIC "X"
11. Press **↑** key
12. Press **G** key. Message now runs as follows:

THIS IS THE  
ADVERTISER  
MODEL  
#3100  
FROM  
CYBERNETIC  
DATA PRODUCTS

## F. Variable Scan Speed

Variable Scan Speed is a provision offered wherein we allow you to have different sections of your message present themselves at different speeds. This is particularly effective when you are displaying graphics like automobiles, jet airplanes, trains, etc.

We will split our message and have the first half run at our top speed of zero then slow the second half down to a speed of two.

1. Press R key. Display stops
2. Press ↑ key, Display shows: START OF MEMORY ↵
3. Press and hold B key
4. Press S then 0. Display shows: ART OF MEMORY ↵ "S"0
5. Press → key several times until your display shows: R-TISER"U""E"MODEL"S"2
6. Press and hold B key
7. Press S then 2. Display shows: TISER"U""E"MODEL"S"2
8. Press ↑ key
9. Press G key

The message will travel quickly thru the first three frames then slow down noticeably starting with the fourth frame.

## G: Repeat Key

The REPT (Repeat) key is used to allow the programmer to quickly repeat a given keystroke. This function can be used to enter repetitive characters as well as in aiding the search process within memory by using the ← → keys.

1. Press R key, Display stops
2. Press and hold down the REPT key
3. Press the ← key

Message moves rapidly backwards from left to right.

4. Press and hold down the REPT key
5. Press the → key

Message moves rapidly forwards from right to left.

6. Press ↓ key
7. Press and hold REPT key
8. Press SHIFT key
9. Press \* key. The \*'s are rapidly inserted on the display until the key is released

Display shows: CTS.\*\*\*\*\*.

10. Press and hold REPT key
11. Press and hold SHIFT key
12. Press and hold DEL key. The \*'s are rapidly removed until one of the keys is released

Display shows: ATA PRODUCTS.\*\*\*

## V. Editing

The Editing capabilities of the #3100 have been designed to allow you word processor entry format. Not only can you correct errors but also you can insert and delete characters at will.

### A. Adding Messages

When you want to add to your ADT 113100's memory, you need only to determine where to add it. The process is very simple:

1. Press R key. Display stops
2. Use ← → keys to position your display as follows: "E"MODEL"S"2#3100 "C"
3. Type in: VISUAL COMMUNICATION SYSTEM
4. Press ↑ key
5. Press G key

When the message runs, you will see that our new copy has been entered in the middle of the other text. It wipes on left to right, interlaces and unveils just like the rest of the message. We can also totally change the presentation mode as we add to the message. For example:

6. Press R key. Display stops
7. Press ↓ key. Display shows: "WW" DATA PRODUCTS
8. Press and hold B key
9. Press letter V. Display shows: "W"DATA PRODUCTS."V"
10. Add the following message: HELLP AND WELCOME
11. Press G key

You can see that the end of your message now travels while the original text continues to operate in the various impulse modes.

### B: Correcting Errors

Look closely at the end of your message and you will see that we had you intentionally type in an incorrect character by using a P instead of an O in HELLP.

1. Press R key. Display stops.
2. Press ↓ key. Display shows: ELLP AND WELCOME

3. Press ← key until display shows: PRODUCTS."V"HELLP
4. Press and hold SHIFT key
5. Press DEL key. Display shows: A PRODUCTS. "V" HELL

At this point, we have removed or deleted the incorrect character and can now insert the proper one in its place.

6. Press O key. Display shows: PRODUCTS. "V" HELLO
7. Press G key. Your message will now run and HELLO will be correctly displayed

## VI: Graphics

The GRAPHICS capability of your ADT#3100 is an exciting function that transforms the impact of your messages. You have the actual creative ability to draw different items right on your display.

### A. Drawing Pictures

Let us draw a simple picture of a heart to show you how this works.

1. Press R. Display stops
2. Press ↓ Display shows: LLO AND WELCOME
3. Press the spacebar three times
4. Press Y
5. Press the letter G. Display shows: '●' (*a single blinking dot in the left column – bottom row*)

The cursor arrows (←→ ↓↑) will move and position this blinking dot to the locations you wish to select for your graphics. Once in position, pressing the letter S will light up the dot.

6. Press ↑ five times
7. Press letter S
8. Press ↑ once
9. Press letter S
10. Press → once. Both the 5<sup>th</sup> and 6<sup>th</sup> LEDs are lit
11. Press ↑ once
12. Press letter S
13. Press ↓ three times
14. Press letter S. Both the 4<sup>th</sup> and 7<sup>th</sup> LED's are lit

Using the arrows in similar fashion, select the following pairs of LED's in each successive column as you move to the right remembering that you are counting from the bottom upwards.

3 <sup>rd</sup>	3 and 7
4 <sup>th</sup>	2 and 6
5 <sup>th</sup>	1 and 5
6 <sup>th</sup>	2 and 6
7 <sup>th</sup>	3 and 7
8 <sup>th</sup>	4 and 7
9 <sup>th</sup>	5 and 6

At this point, the heart shaped character should be evident on your display and the blinking dot should be located in the 9<sup>th</sup> column from the left. Many other graphic characters are pictured in the Appendix Section of this manual.

## B. Entering Into Memory

We are now ready to enter our GRAPHIC character into the memory of your #3100. All we need to do is the following:

1. Press RETURN. Display shows: Cn
2. Press RETURN. Display shows: OME
3. Press G

When the end of your message appears this time the heart shaped graphic will travel across. To show you how you can utilize this function to further enhance your message presentation do the following:

4. Press R Display stops
5. Press  key. Display shows: OME 
6. Press  key ten times
7. Press letter L. Display shows: AND WELCOME L
8. Press  key
9. Press letters V and E
10. Press G

This time the end of the message will display the word LOVE only the O will be replaced by the heart.

## C. Editing Pictures

In order to change a graphic character we need only to position the blinking dot over the unwanted LED position and press the letter C for Clear. You must first stop the display and place your graphic entry on the right side of the display. Now enter the graphics mode by pressing Y then the letter C. The cursors will now allow you to position yourself for editing purposes to "TURN OFF" the LED's.

## VII. Multiple Message

The Multiple Message capability of your ADVERTISER #3100 is unique because it shows you to enter several different messages into memory and call them up for display at some later point. There is no limitation on the memory of a given message other than the total 1550 character capability.

### A. Labelling Messages

The most commonly used method of Identifying or Labelling Messages is to use a two digit number (01,02, etc.). This makes cataloging a table of contents very simple and aids in easy message recall.

AT THIS TIME, WE WILL CLEAR YOUR EXISTING MESSAGES OUT OF MEMORY TO MAKE THE MULTIPLE MESSAGE SECTION SIMPLER. PLEASE REFER TO SECTION III (E) OF THIS MANUAL FOR INSTRUCTIONS.

For our example, we will assume that we are running a hardware store and want to create messages on three items. We will keep the messages brief and not put the normal presentation enhancements in to make our example as simple as possible.

It is important to remember that every Multiple Message must:

1. Be preceded by a HOME key input which displays an “↑” on the screen (not to be confused with the ↑ key located to the left of the spacebar)
2. Have a two digit number (01, 02, etc.) immediately after the "HOME" arrow

Here are the messages we will use:

```
“↑” 01 Chainsaw Special: $189.95
“↑” 02 June Paint Sale at Ace Hardware
    All Latex Paint $11.90 per gallon
“↑” 03 3/4" Black & Decker Drill **$45.00**
```

What we have done is create three separate messages that can be addressed individually at any time by commanding (thru the keyboard) the #3100 to display the chosen message.

### B. Running Messages

We are now ready to command one of our messages to run.

1. Press Y key
2. Press letter P. Display shows: Es RUN-
3. Press 0 then 1. Display shows: Es RUN-01
4. Press RETURN. Display shows: RT OF MEMORY ↵ “↑” 01
5. Press G key

Display at this point takes off and presents our first message.

Chainsaw Special: \$189.95

This message will continue to repeat until we alter our command.  
Let us run our message on paint and see how easy it is.

6. Press R key. Display stops
7. Press Y key
8. Press letter R. Display shows: Es RUN-
9. Press 0 then 2. Display shows: Es RUN-02
10. Press RETURN. Display shows: ECIAL: \$189.95 “▲”02
11. Press G key

Now our paint message will run and repeat even though messages 01 and 03 are also locked in the memory. To run message 03 repeat the steps above inserting 0 and 3 in step #9.

### C. Deleting Messages

One of the newest features we have added to our Model #3100 is the ability to delete from memory:

- Entire messages
- Portions of messages
- Entire text from either the start or the end from any given starting point

This is particularly helpful in the Multiple Message Mode or when dealing with lengthy messages which use up memory. Working with our three existing messages lets demonstrate how to selectively remove and/or replace messages.

It would be very time consuming to repetitively SHIFT DEL a long message from memory. The quickest solution is as follows:

1. Press R key. Display stops
2. Press Y key
3. Press letter R. Display shows: Es RUN-
4. Press 0 then 1, Display shows: Es RUN-01
5. Press RETURN. Display shows: RT OF MEMORY ▣ “▲”01

If we wish to delete the text of message #01 (The Chainsaw) we would proceed as follows;

6. Press Y key
7. Press → key. Display shows: Es DEL ETX (Y/N):

The computer is asking you if you wish to delete to the END OF TEXT in your message 01. Answering yes will not remove our identifying label but only the copy of our message itself.

It will stop at the first “↑” it comes to.

8. Press letter Y. Display shows: ETX(Y/N): DONE Cn

You have now left your “↑”01 labelling identifier in memory but cleared out the message that reads Chainsaw Special \$189.95. If you want to replace this message with another simply type it in.

Example:

G.E. Toaster - This Week Only - \$19.95

Repeat steps 2 thru 5 above and this message will run.

To remove a message or portion of that message moving forward, position the last unwanted character on the right side of the display. For example, position display in message 03 as follows:

Display shows: Black & Decker

1. Press Y key
2. Press ← key. Display shows: Es DEL STX (Y/N)
3. Press letter Y. Display shows: STX (Y/N):DONE Cn
4. Press RETURN. Display shows: 11.90 PER GALLON “↑”03

Now we can add to the front portion of the memory of message 03. Type in new text like this:

½” Craftsman.

When you press G the message: ½” Craftsman Drill\*\*\* \$45.00 \*\*\* will travel across.

In exactly the same fashion the ↑ in step 2 will ask to: Es DEL SOM (Y/N):  
The SOM reference is for deleting to START OF MEMORY and will ignore ↑ points.

The ↓ will question: Es EOM (1/N): with the EOM asking to delete to END OF MEMORY

Multiple Message is a powerful tool when properly utilized to allow storage & recall of different messages. Use it to its full advantage and it will aid your sales and service efforts substantially.

## VIII. APPENDIX

### A. Graphics

1. Blank Work Sheet: Use this page to help yourself construct graphics that you want to enter on your Advertiser.















