

SVI • 105

GRAPHIC TABLET USER'S MANUAL



SPECTRAVIDEO'S USER'S MANUAL STATEMENT

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient the receiving antenna
- Relocate the computer with respect to the receiver
- Move the computer away from the receiver
- Plug the computer into a different outlet so that computer and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful:

"How to Identify and Resolve Radio-TV Interference Problems" This booklet is available from the U.S. Government Printing Office, Washington, DC 20402. Stock No. 004-000-00345-4.

WARNING:

This equipment has been certified to comply with the limits for a class B computing device, pursuant to Subpart J of Part 15 of FCC Rules.

INTRODUCTION

Spectravideo's Graphic Tablet SVI-105 is a peripheral product designed for use with computer unit SVI-318/328. Simply connected the SVI-105 to the Joystick Port 1 of the computer unit, you can create your masterpiece on the TV screen with a ball-point pen. A wide variety of graphic modes and colors are available for your selection. It is ready to save the graphics on a cassette tape as well as print it out with the installation of the SVI-901 printer.

Read the instruction manual thoroughly to become familiar with the SVI-105. It is your guide to proper installation and operation.

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SPECTRAVIDEO GRAPHIC TABLET SVI-105 INSTRUCTION MANUAL

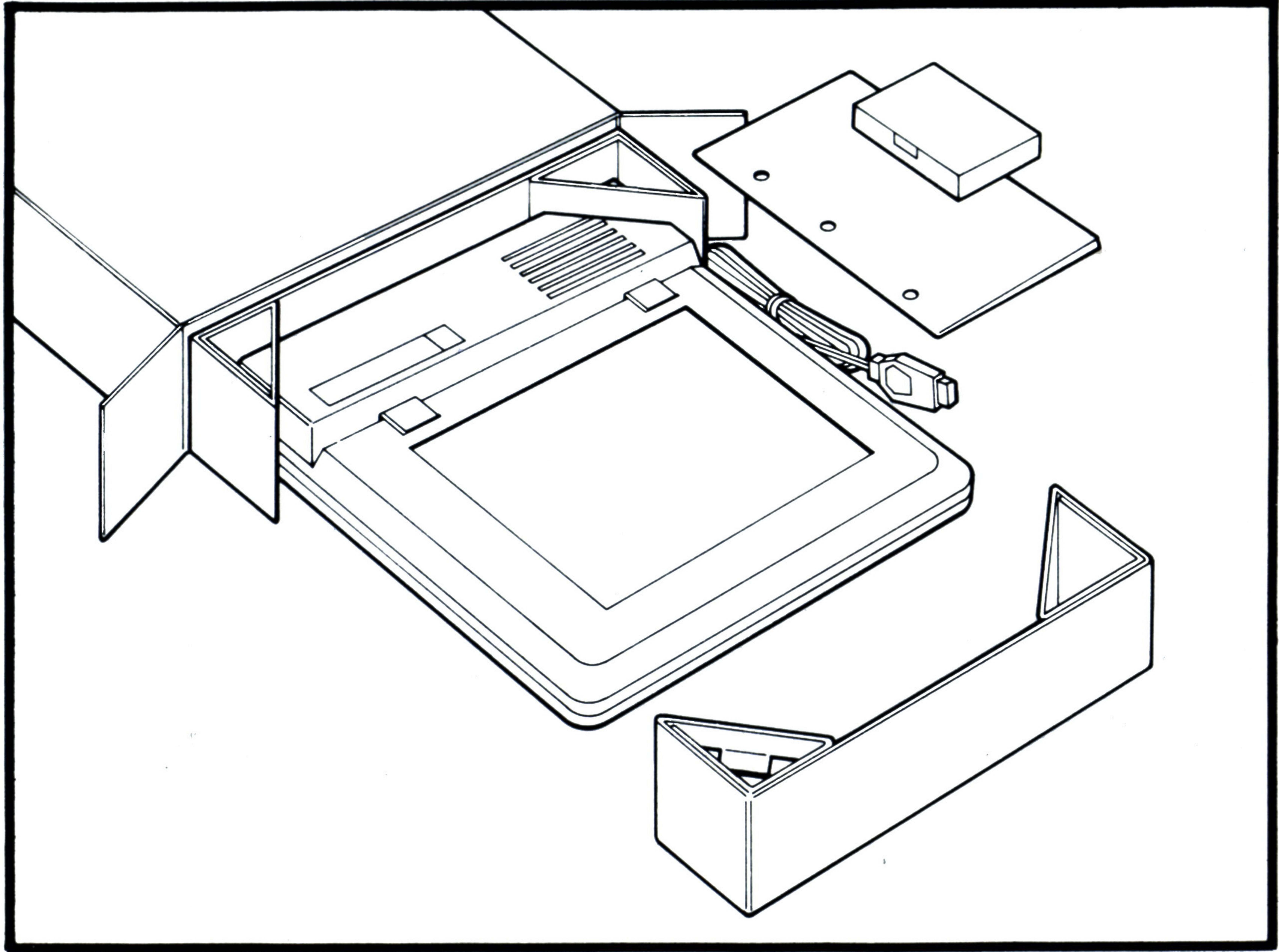
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1. Accessories

The SVI-105 Graphic Tablet should contain the following items.

- (A) Graphic Tablet with a cord (one end with connector).
- (B) Software cassette tape.
- (C) This instruction manual.
- (D) Warranty registration card.

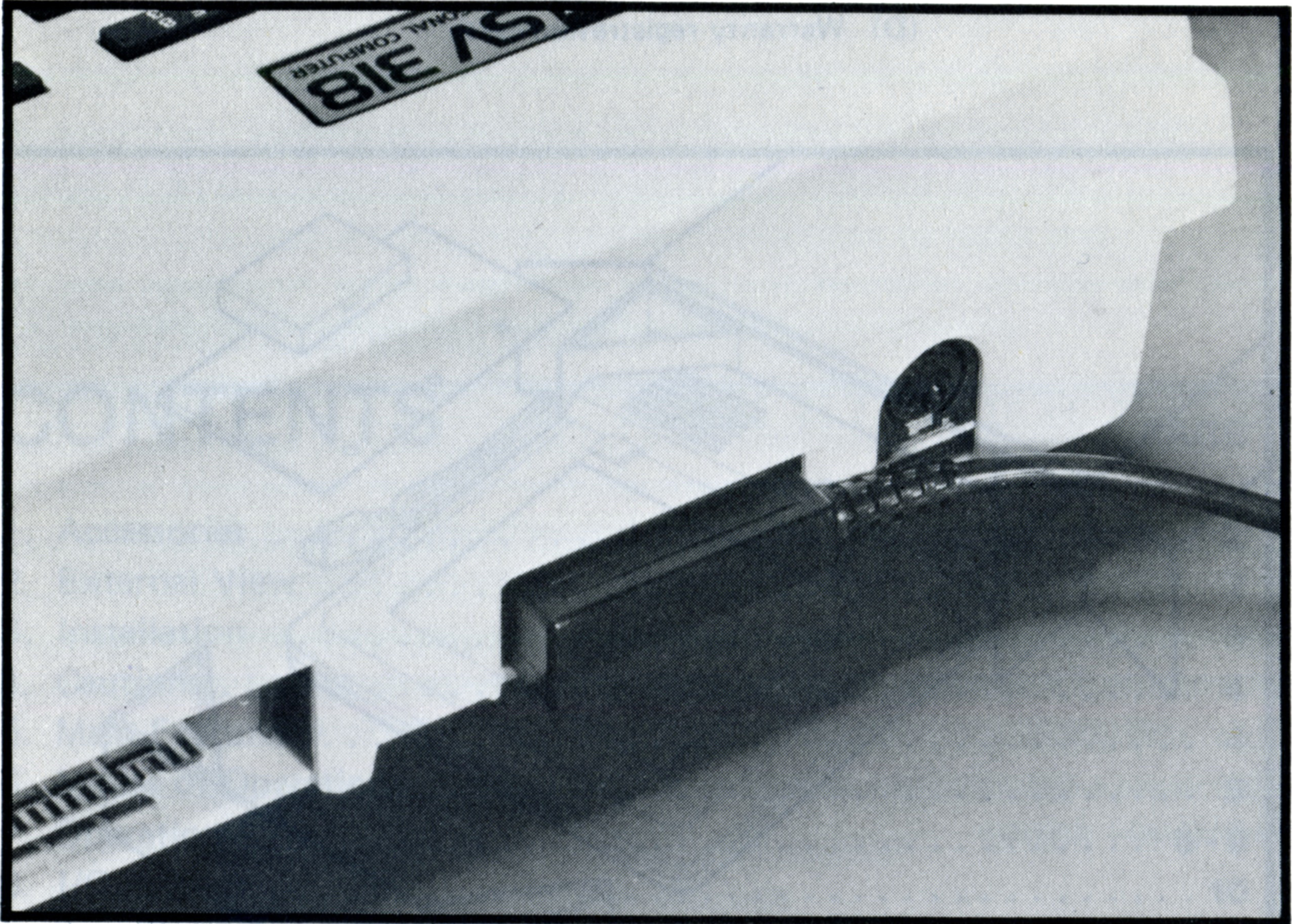


2. External View



3. Installation

- (A) Make sure the power of the computer is off. Insert the connector on the tail end of the cable that is attached to the SVI-903/904 Data Cassette into the cassette I/O port on the back of the computer.



- (B) Connect the cord with the connector on one end to the Joystick Port 1 at the right hand side of the computer.



- (C) If you want to print the picture on paper, connect the computer to the printer SVI-901 or EPSON series printer. For details, please refer to the printer User's Manual.

4. Cautions

- (A) Never connect or disconnect the SVI-105 Graphic Tablet or Data Cassette with the computer unit when power is On. This may cause short circuit of the connector.
- (B) Do not drop the Graphic Tablet unpacked. This can cause irreparable damage to the circuit board.
- (C) Do not operate this unit in an area where the temperature or humidity is high or where there is direct sunlight.
- (D) Do not use anything which is sharper than the ball-point pen on the Graphic Tablet. This may damage the surface of the Tablet.

5. Main Features

- (A) Easy connection to the computer unit.
- (B) Battery free as power supplied by the computer unit.
- (C) Compact and slim size.
- (D) 15 colors for drawing pictures.
- (E) Words can be displayed together with the created graphics on the graphic screen.
- (F) "CSAVE" and "CLOAD" commands for easy cassette operation.
- (G) Simple operation of drawing box, circle, line and painting as well.
- (H) Selection of drawing thick or thin line.
- (I) The graphics designed can be printed out with a printer.
- (J) Ready to erase the picture on the graphic screen and clear the whole screen.
- (K) Choice of background color without changing anything.
- (L) Cursor movement keys can be used to draw fine and straight line.

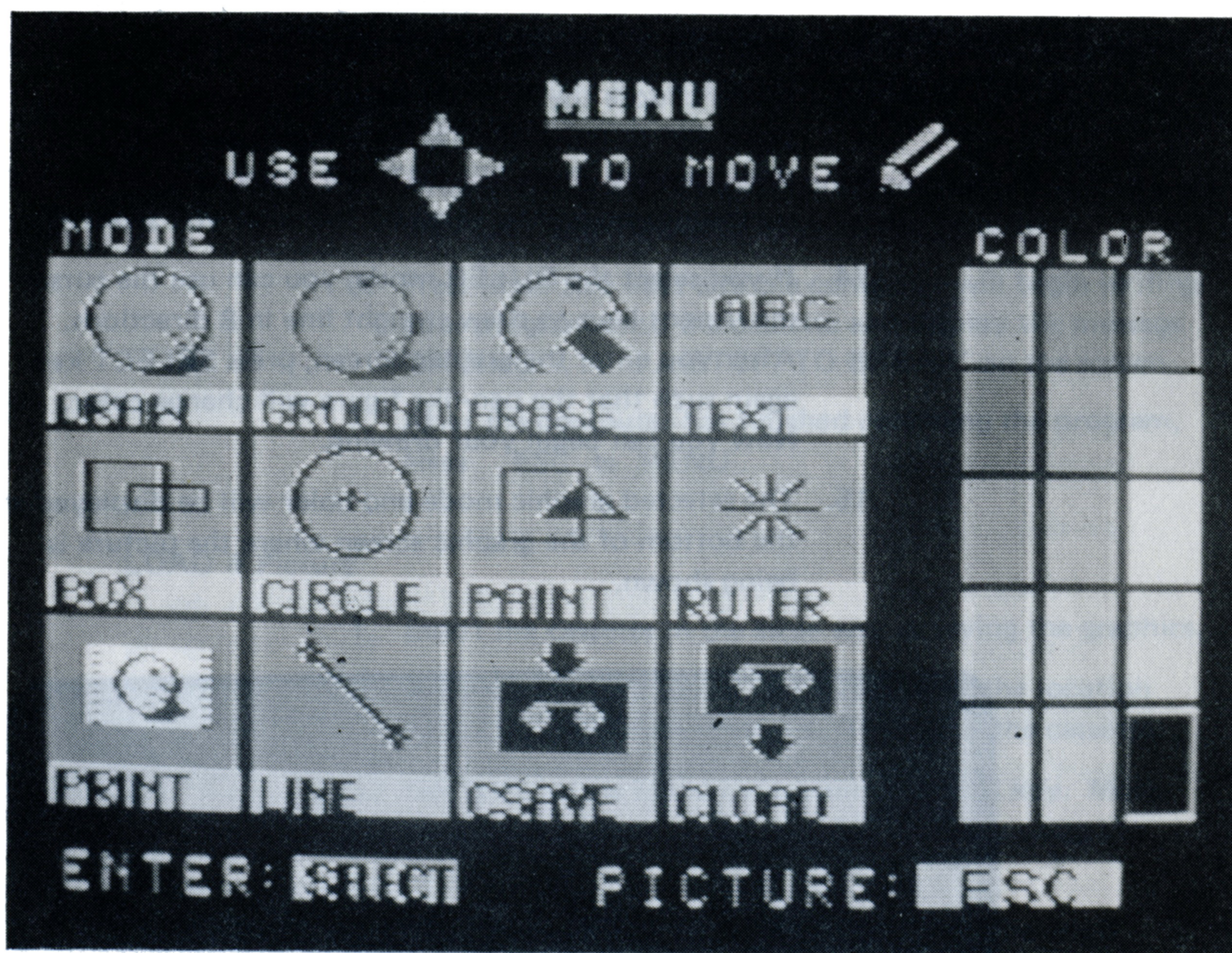
6. Modes of Operation

- (A) DRAW/BRUSH: Pictures drawn or traced on the tablet can appear on the TV screen with thin line or thick line.
- (B) ERASE: The user can erase the picture drawn on the TV screen, just like erasing a pencil mark using a rubber.
- (C) COLOR: Any of the 15 colors can be selected as desired.
- (D) GROUND: The background color of the screen can be in any of the 15 colors.
- (E) CSAVE: The pictures drawn on the TV screen can be stored on the cassette tapes.
- (F) CLOAD: The pre-recorded graphic data can be loaded from the tapes, and displayed on the TV screen.
- (G) PAINT: Any closed area of pictures can be filled with desired color.
- (H) PRINT: A copy of the picture on the screen can be obtained from the printer.
- (I) LINE: The user can make a single line. The starting and ending points of the line are specified by touching the tablet.
- (J) CIRCLE: The user can make a circle. The centre and the radius are specified by touching the tablet.
- (K) BOX: The user can create a square or a rectangle. The two points that are specified by touching the tablet will define the diagonal of the square or rectangle.
- (L) RULER: The user can use the cursor movement keys to draw any fine straight line.
- (M) TEXT: The user can type in any desired words which will appear on the graphic screen together with the drawn picture.
- (N) MENU: All functions (or modes) of the GRAPHIC TABLET described above are displayed on the TV screen in this mode.
The users can select any of the functions at a time as desired.
- (O) FULL SCREEN: The user can draw pictures on the TABLET that will appear on the TV screen, according to the above graphic commands. The TV screen size is equivalent to the tablet size.
- (P) CLEAR: The user can clear the whole screen.

7. Operation

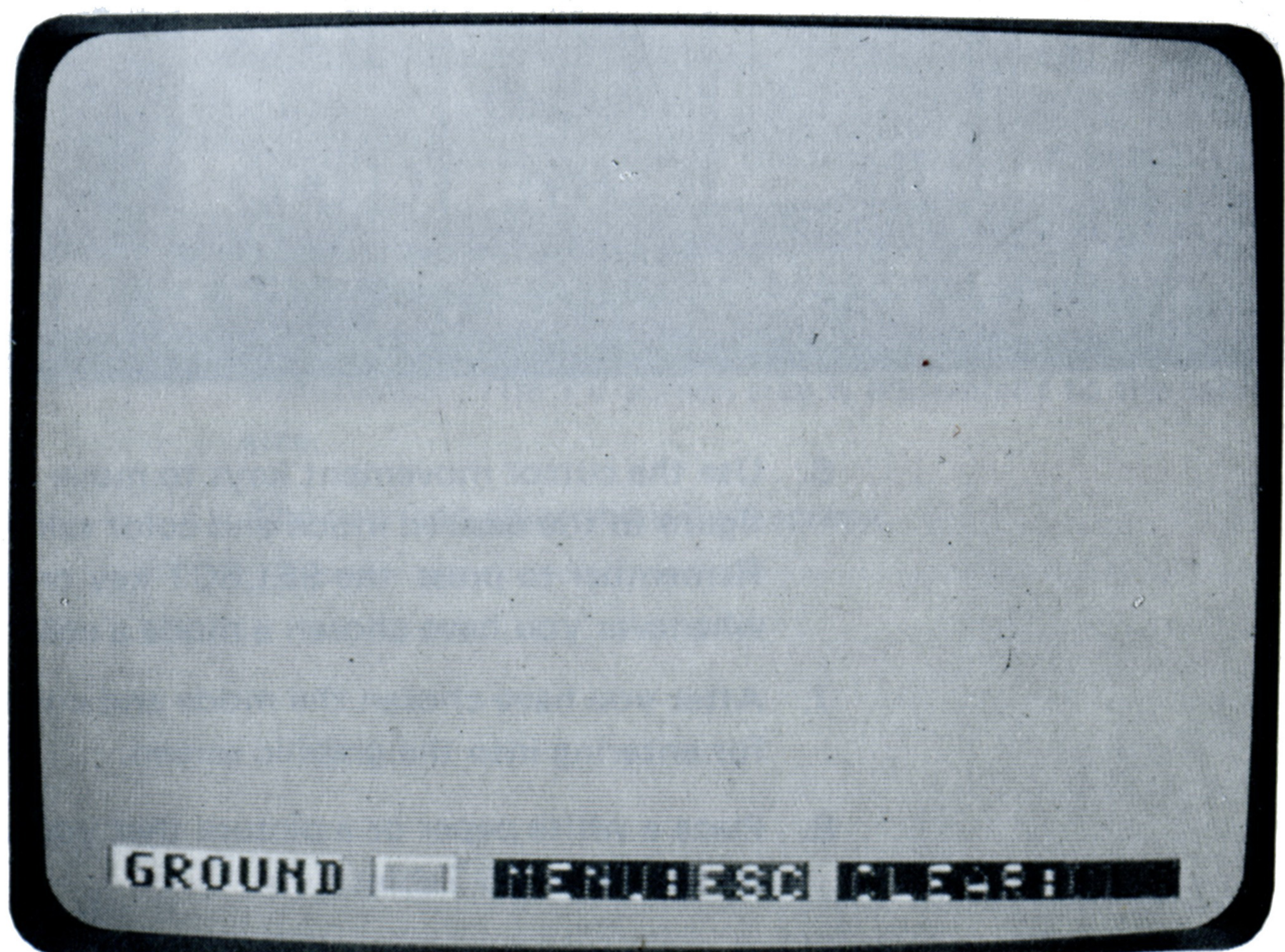
(A) Operation of the Tablet

1. Turn on the power of the computer. Insert the provided cassette tape into the SVI.903/904 Data Cassette with Side A facing upwards.
2. Rewind the cassette tape fully by pressing the REWIND key on the cassette. All the tape should be on the lefthand spool.
3. Type 'bload "tablet", r' and press ENTER. The computer will then tell you to press the PLAY key.
4. After the program is loaded into the computer, the computer will print 'Found:tablet' on the screen.
5. Wait about 90 seconds, a table of graphic modes and the color blocks (menu) will appear as follow :



6. Use the cursor movement keys to move the pen-like figure to the desired mode and color selection block. Remember to press the SELECT key on the computer whenever you have chosen a mode a color one at a time.
7. After you have chosen the mode and color, press ESC for entering into the graphic screen.
8. Place a white paper or a picture that you want to trace on the SVI-105 Tablet.

9. When the computer is turned on, the **DRAW** mode will be automatically selected. You can either draw anything on the paper or trace a picture with a ball-point pen. The graphics created will appear on the screen. In **DRAW** mode, thinner line will be used in drawing.
10. If you want to choose **BRUSH** mode, move the pen-like figure to **DRAW** mode and press **SELECT**.
11. If you choose the **CIRCLE** mode, fix two points on the paper over the Tablet with a ball-point pen. The computer will respond with a beep sound when you touch the Tablet. These two points will define the radius of the circle, with the first point as the centre. However, if you choose the **Box** mode, the two points will define the diagonal of the box.
12. Moreover, in **BOX**, **CIRCLE**, **LINE** modes, you may erase the first point located by jumping to the menu and back to the graphic screen by pressing the **ESC** key twice. Now you can locate the first point again.
13. If you choose the **PAINT** mode, you can use the ball-point pen to touch the Tablet, a cursor will appear at that position. Press **SELECT**, the closed area where the cursor located will be filled by the color you selected.
14. If you select the **RULER** mode, you can use the cursor movement keys to draw straight line in 8 directions. After you enter the graphic screen, press **SELECT** key again such that the pen-like figure will change color. Now you can begin your drawing.
15. The selected graphic mode and color will be displayed at the bottom of the graphic screen where the picture is being shown.



16. Press ESC if you want to get back to the Menu.
17. Press CLS key if you want to clear the whole screen.
18. The selected mode and color block will flash in the menu screen.

(B) Operations with the SVI-903/904 Data Cassette
SAVE a Picture

1. Insert the cassette and rewind it such that all the tape will be on the left-hand spool. Push the reset button to set the tape counter to the "000" position.
2. Use the fast-forward key to advance to the empty tape area where you want to save the designed graphics.
3. Return to the Menu by pressing the ESC key. Move the pen-like figure to the CSAVE mode by using the cursor movement keys and then press SELECT.
4. The computer will display the word 'FILE'. This allows you to type in a filename with a maximum of 6 characters.
5. After pressing ENTER, the computer will tell you to press the PLAY and RECORD keys on the recorder.
6. Press these two keys and the computer will begin writing your program onto the cassette and display the message 'SAVING Δ(STOP) TO BREAK' on the screen.
7. After the computer has finished recording the program, press ESC to MENU .

LOAD a Picture

1. Insert the cassette in the same way as saving the graphics.
2. Advance the tape (using fast forward) to the location where your graphics is stored. Then stop the cassette.
3. Get back to the Menu by pressing the ESC key. Move the pen-like figure to the CLOAD mode by using the cursor movement keys and press SELECT.
4. The computer will respond by displaying the word 'FILE'. Type in the filename which you want to load.
5. After pressing ENTER, the computer will tell you to press PLAY key on the recorder.
6. After you press the PLAY key, the computer will begin loading the program, and display the message 'FOUND filename Δ(STOP) TO BREAK'
7. When it finished, the message 'LOADED, PRESS ESC TO MENU' will display.

In case you want to interrupt the computer and stop it from saving/loading a program, press the CTRL key and STOP key simultaneously.

(C) Operation with the SVI-901 Printer

1. Use SVI-901 or EPSON series printer if you want to print the drawn picture on paper.
2. Back to the Menu by pressing the ESC key. Move the pen-like figure to the PRINT mode and then press SELECT.
3. The computer will display the message 'Select: "E"pson or "S"V-901'. This allows you to choose the type of printer which you are using.
4. Press 'E' (or 'S') key, the computer will display the message 'EPSON (or SV-901): Confirm (Y or N)'
5. After pressing 'Y' key, the computer will begin printing out the picture you have just drawn.
6. If you press 'N' key, you can select the type of printer again.

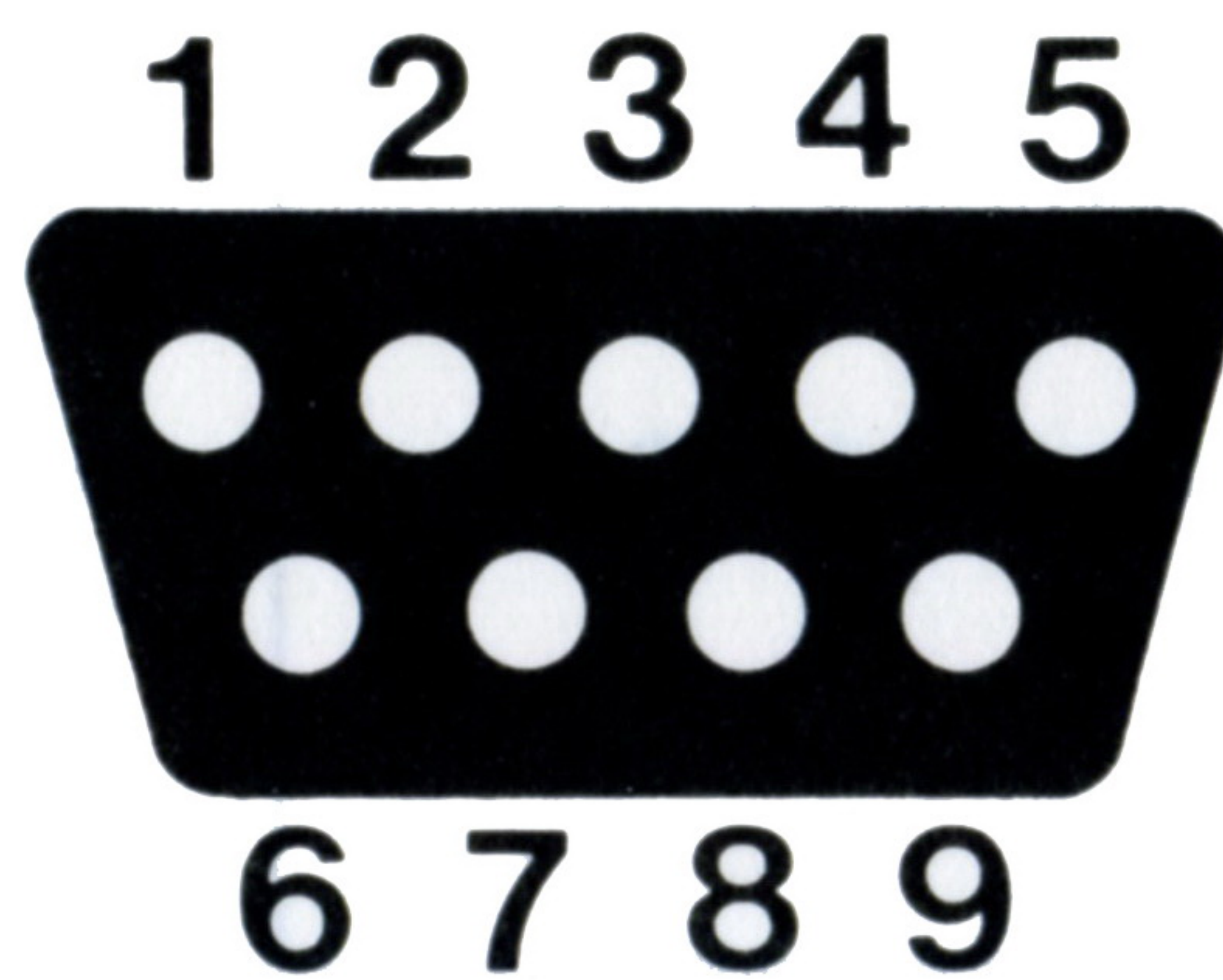
(D) Operation of the Tablet under BASIC Programming

- A. You may use the Tablet as a fantastic touch sensor if you know how to write **BASIC** game program. It is faster and more versatile than a joystick or a paddle control.
- B. Instead of loading the software, you should type in a **BASIC** Program to the computer. The following is the demonstration program.

```
10 COLOR 15,4,7
20 SCREEN 2
30 KEY ON
40 A=PAD(0): IF A=0 THEN GOTO 40
50 A=PAD(1): IF A>128 THEN GOTO 70
60 BEEP: CLS: LOCATE 50,70: PRINT "LEFT":
  GOTO 40
70 BEEP: CLS: LOCATE 60,70: PRINT "RIGHT":
  GOTO 40
80 STOP
```
- C. Just use a ball-point pen or the finger to touch the Tablet. If you touch the left hand side of the Tablet, the word 'LEFT' will be displayed on the screen with a beep sound.
- D. On the other hand, if you touch the right hand side of the Tablet, the word 'RIGHT' will be displayed with a beep sound.

8. I/O Pinouts

PIN	NAME	DESCRIPTION
1	$\overline{\text{SCK}}$	serial clock
2	$\overline{\text{SI}}$	serial input
3	$\overline{\text{CS}}$	chip select
4		no connection
5	$\overline{\text{SENSE}}$	sense signal
6	SO	output signal
7	+5V	power supply
8	GND	system ground
9	EOC	end of conversion



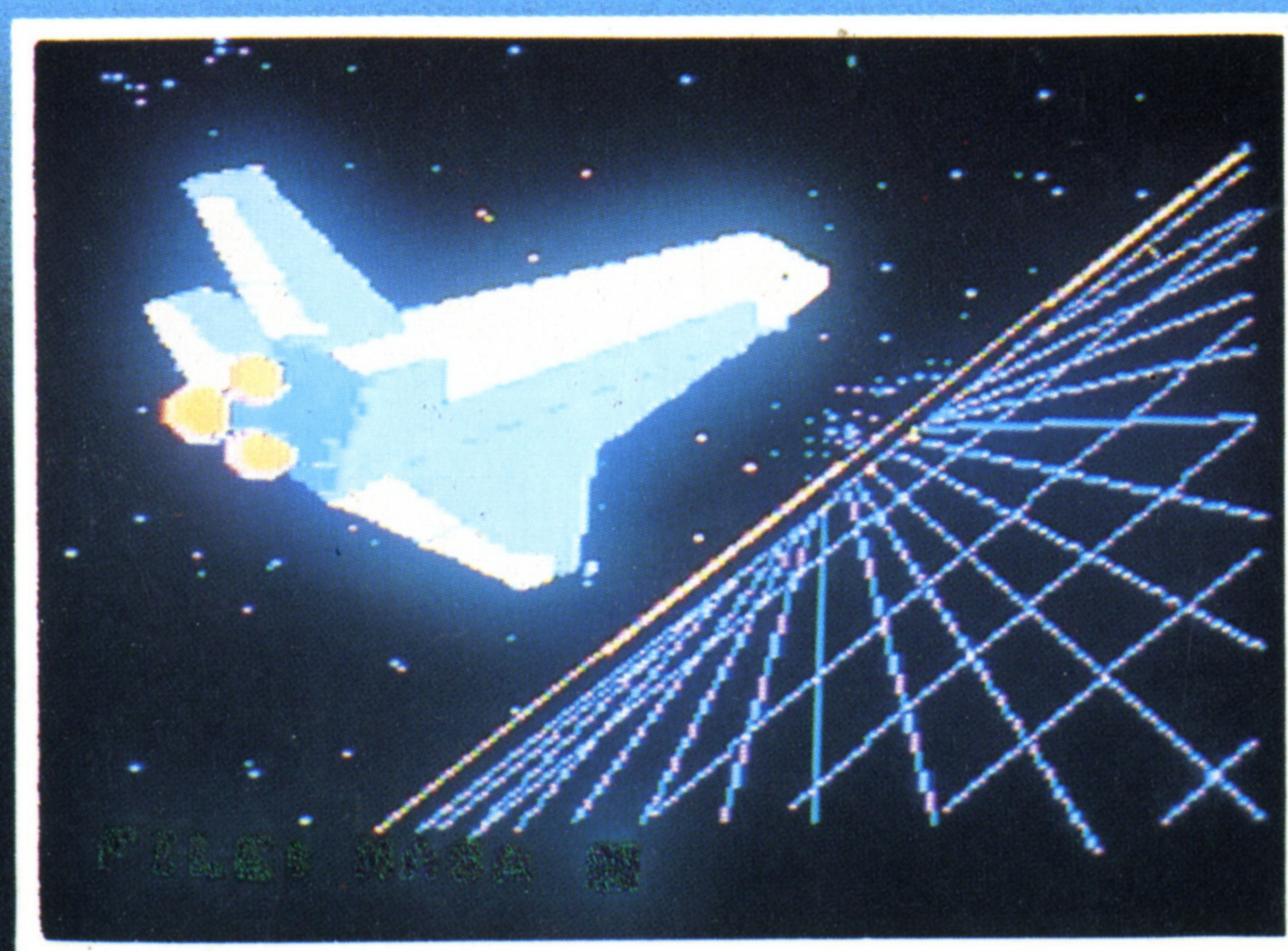
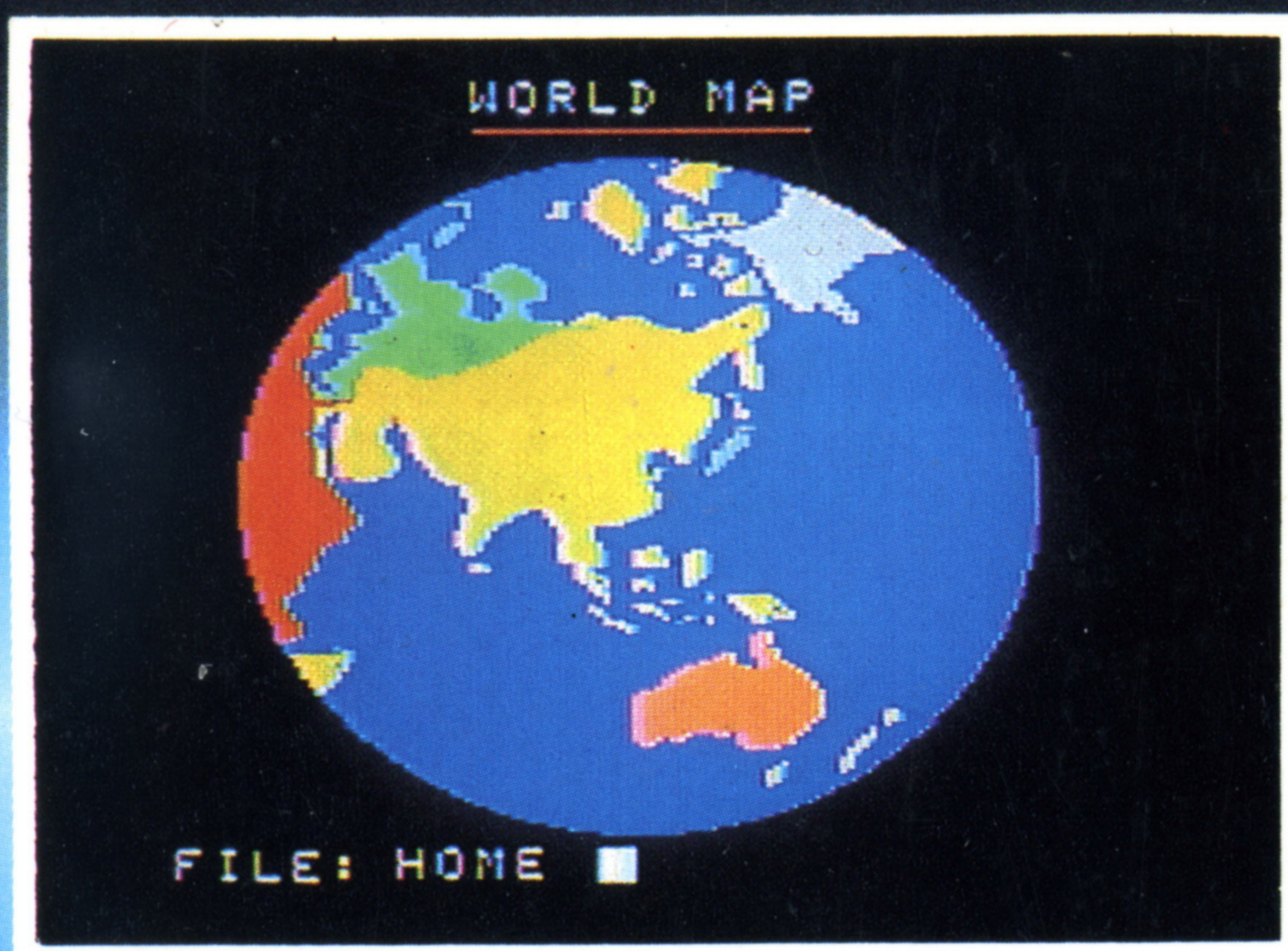
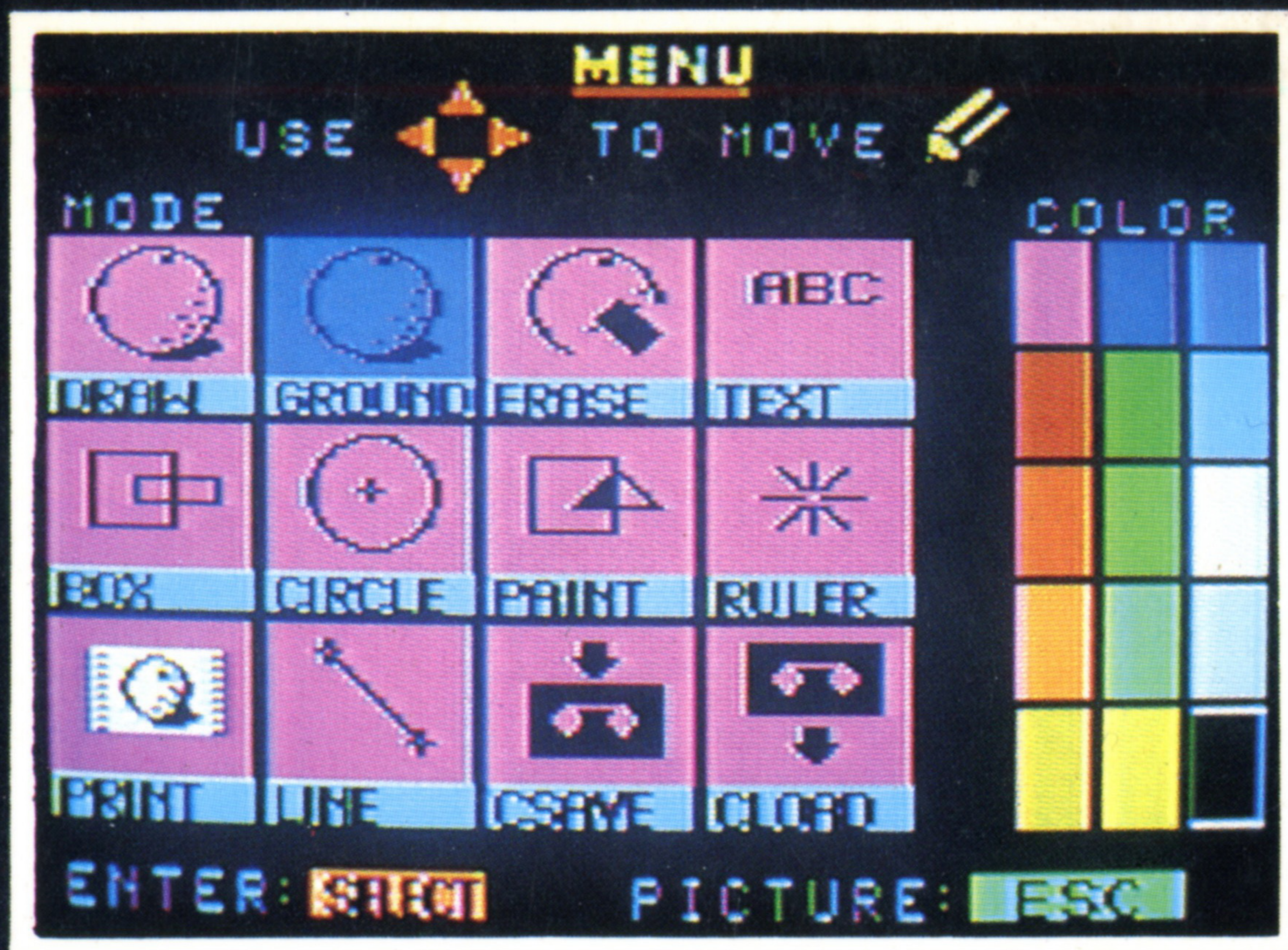
9. Specifications:

(1) Digitization Method	:	Resistive Method
(2) Effective Digitizable Area	:	186mm*158mm
(3) Effective Digitizable Distance	:	3.5mm (min)
(4) Resolution	:	256*192 pixels
(5) Transmission Speed	:	6 microseconds/bit
(6) Transmission Method	:	Serial Data Transmission
(7) Power Requirement	:	Supplied by SV318/SV328
(8) Maximum power consumption	:	37mW
(9) Operating Force	:	Max 150 gm force.
(10) Writing Material	:	Ball-point Pen
(11) Temperature	:	0°C – +40°C
(12) Humidity	:	40 – 85 % R.H.
(13) Dimensions	:	345(D)*280(W)*30(H) (mm)
(14) Weight	:	1kg approx.

10. Trouble Shooting Chart

Please disconnect the Tablet from the computer and check whether the computer can function properly.

SYMPTON	POSSIBLE CAUSE	REMEDY
CANNOT DRAW	Loose Tablet Cable	Plug the connector of the Tablet to the Joystick Port 1 of the computer firmly.
NO COLOR	Improper Tuning and Colour Level	Adjust TV color level and fine tune the TV.
NO PICTURE	Loose Video Cable	Connect the cable to the Video input on the TV.



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