# TROJAN

# CADMASTER®
## CBM 64/128

## USER
## INSTRUCTIONS

### PLEASE READ CAREFULLY

The **TROJAN CADMASTER PACK** comprises of a Graphics program plus a Light Pen and this instruction booklet. The pack is intended for use by micro users of all ages and any level of expertise. It can be used to produce any type of picture from a full colour art display to a black and white technical drawing. The 'Pin Point' function in the program allows pixel accuracy and the various line thicknesses can be used to dramatic effect. Please experiment with all the functions which when combined with all 16 colours and the three pens give more choices than we mention in this booklet.

### A FEW HINTS ...
Keep the tip of your light pen clean. When using the pen, always point it directly at and square to the screen, holding it as you would a normal pen or pencil. Do not apply undue pressure on the tip of the pen — a light touch is all that is required.

### LOADING THE SOFTWARE
The software supplied in this pack is on cassette tape but can be acquired on disk by filling in the coupon at the end of this booklet and sending it with your remittance to the address given.
1. Insert the cassette into the recorder.
2. Press SHIFT/RUN STOP key.
3. Press PLAY on recorder.
The program will now Load and Auto run.
Loading time is approx. 2.5 minutes.

### WHEN THE PROGRAM IS LOADED
1. Plug the Light Pen into the No.1 Port which is on the right hand side of your micro.
2. Carry out the calibrating procedure as shown on the screen.
3. The **MAIN MENU** will now appear on the screen.

## THE MAIN MENU
To select an option from the menu you must point the tip of the pen at the centre of the box to the right of the required option.

### LINE TYPES
The first column down the left hand side of the menu screen are all "LINE TYPE" options. When you have selected the type of line that you require the description on the menu will

change to reverse print and remain that way until you choose any other LINE TYPE option. The LINE TYPE which you select will be used with any of the following options that you may select:—BOX,CIRCLE,LINE,BANDING,RAYS and DRAW.

1. THIN. This option will produce a uniformly thin line.
2. QUIL 1,2&3. These options produce a thicker line in the "X" direction than in the "Y" direction thus giving a "Copperplate" effect. Quil 1,2&3 are graded to give a progressively thicker line.
3. THICK. This option will draw a uniformly thick line.
4. XDOT. This option produces a dotted line in the "X" direction and can be used to produce vertical lines in the DRAW option.
5. YDOT. This option produces a dotted line in the "Y" direction and can be used to produce horizontal lines in the DRAW option.
6. DOTLI. This option produces a dotted line in the DRAW option or in any of the GEOMETRIC options.

# GEOMETRIC OPTIONS
The GEOMETRIC options can all be drawn in any of the LINE TYPES so be sure to select the type which you require before choosing a GEOMETRIC option.
**BOX**
1. Select BOX option.
2. Use the pen to move the 1st.cursor to the point on the screen where you require one corner of the box to be positioned.
3. Press the CTRL key to set the 1st.cursor.
4. You may now "Pin Point" the 1st.cursor by using the CRSR keys. When cursor has been "Pin Pointed" press CTRL to lock 1st.cursor in position.
5. Now position 2nd.cursor where you require the opposing corner of the BOX to be positioned.
6. Press the CTRL key to set the 2nd.cursor.
7. You may now "Pin Point" the 2nd.cursor by using the CRSR keys. The BOX will appear on screen in Dynamic banding and will be repositioned by moving the 2nd.cursor.
8. When correct position is acquired press CTRL to lock 2nd.cursor and BOX in position.

You may now repeat this option as required.

Press Q key to leave this option and to return to the **MAIN MENU**.

## BANDING

1. Select BAND option.
2. Use the pen to move the cursor to the required starting point.
3. Press CTRL key to set 1st.cursor.
4. You may now PIN POINT cursor by using the CRSR keys. When cursor is PIN POINTED press CTRL to lock 1st.cursor in position.
5. Move 2nd.cursor to required position.
6. Press CTRL key to set 2nd.cursor. Dynamic banding line will now appear on screen.
7. You may now PIN POINT 2nd.cursor by using the CRSR keys.
8. Press CTRL key to lock 2nd.cursor and first line in banding operation will be drawn on the screen.
9. Move the cursor to the third position and follow instructions 6 to 8 above.

You may carry out the above operation as often as required. Press Q key to leave this option and to return to the **MAIN MENU**.

## RAYS

1. Select RAYS option.
2. Use the pen to move the cursor to the required centre position of the RAY.
3. Press CTRL key to set the centre cursor.
4. You may now PIN POINT centre cursor by using the CRSR keys. When cursor is PIN POINTED press CTRL key to lock centre cursor.
5. Move 2nd.cursor to required position.
6. Press CTRL key to set 2nd.cursor.
7. You may now PIN POINT cursor by using CRSR keys. Dynamic banding of line will now appear on screen. When cursor is PIN POINTED press CTRL key to lock cursor and to draw first line in RAY.
8. Follow instructions 5, 6 & 7 as often as required to build RAYS.

Press Q key to leave this option and to return to the **MAIN MENU**.

## LINE

1. Select LINE option.
2. Use the pen to move the 1st.cursor to the point on the screen where you wish to start line.
3. Press CTRL key to set 1st.cursor.

4. You may now PIN POINT cursor by using CRSR keys. When cursor is PIN POINTED press CTRL key to lock 1st.cursor.
5. Move cursor to point on the screen where you require other end of line.
6. Press CTRL key to set cursor. Dynamic banding of line will now appear on the screen.
7. You may now PIN POINT cursor by using CRSR keys. When cursor is PIN POINTED press CTRL key to lock cursor and to draw LINE.

Press Q key to leave this option and to return to the **MAIN MENU**.

### TRIANGLE
1. Select TRIA option.
2. Use the pen to move the 1st.cursor to the point on the screen where you require one corner of the TRIANGLE to be positioned.
3. Press CTRL key to set the 1st.cursor.
4. You may now PIN POINT the cursor by using the CRSR keys. When the cursor is PIN POINTED press CTRL key to lock the 1st.cursor.
5. Move the 2nd.cursor to the point where you require the second corner to be positioned.
6. Press CTRL key to set 2nd.cursor. Dynamic banding of first line of the TRIANGLE will now appear on screen.
7. You may now PIN POINT cursor by using the CRSR keys. When cursor is PIN POINTED press CTRL key to lock cursor in position.
8. Move the 3rd.cursor to final point of TRIANGLE.
9. Press CTRL key to set 3rd.cursor. Dynamic banding of TRIANGLE will now appear on screen.
10. You may now PIN POINT 3rd.cursor by using CRSR keys. When cursor is PIN POINTED press CTRL key to lock cursor and to draw TRIANGLE.

You may now repeat option as often as required.

Press Q key to leave this option and to return to the **MAIN MENU**.

### CIRCLE
1. Select CIRC option.
2. Use pen to position 1st.cursor at the point on screen where you require centre of CIRCLE to be.
3. Press CTRL key to set 1st.cursor.
4. You may now PIN POINT cursor by using CRSR keys.

When cursor is PIN POINTED press CTRL key to lock cursor in position.

5. Move 2nd.cursor to a point on the screen where the circumference of the CIRCLE will disect the cursor.

6. Press CTRL key to set 2nd.cursor. Dynamic banding of CIRCLE will now appear on the screen.

7. You may now PIN POINT 2nd.cursor by using the CRSR keys. When cursor is PIN POINTED press CTRL key to lock 2nd.cursor and to draw CIRCLE.

You may now repeat this option as often as required.

Press Q key to leave this option and to return to the **MAIN MENU**.

## FILL

1. Select FILL option.
2. Select FILL pattern from FILL menu which now appears on the screen.
3. Use pen to place cursor in the enclosed area to be filled.
4. Press CTRL key to set cursor.
5. You may now PIN POINT the cursor by using the CRSR keys. When cursor is PIN POINTED press CTRL key to lock cursor in position and to FILL area.
6. Area selected will firstly be filled in the current pen colour. Border colours will flash while micro computes area. The area will then revert to the pattern or colour selected.
7. To quit this option while filling is in operation you must depress and hold down the SPACE bar until option aborts.

N.B. Area to be filled must be fully enclosed by a solid line to prevent pattern or colour from "leaking" to surrounding areas. BRUSH option is not "leak proof".

It is NOT possible to FILL over a pen colour by using the same pen as that used to draw that colour originally. This also applies to background colour.

You may use this option as often as required if pattern is to be repeated.

Press Q key to leave this option and to return to the **MAIN MENU**.

## TEXT

1. Select TEXT option.
2. Select TEXT size and type required from the TEXT menu which now appears on the screen.
3. Use CRSR keys to move flashing cursor to required

starting point.
4. Type required TEXT on keyboard. Use SPACE bar to move cursor onto next line.
Press RETURN key to leave this option and to return to the **MAIN MENU**.

### FREEHAND DRAW
1. Select DRAW option.
2. Use pen to move cursor to starting point required for drawing.
3. Press and hold CTRL down when drawing and move pen smoothly over the screen at a reasonable speed. Use the CTRL key as you would lift pen or pencil from paper when drawing normally.
Press Q key to leave this option and to return to the **MAIN MENU**.

### BRUSH
1. Select BRUSH option.
2. Use pen to move cursor to starting point required for brushing.
3. Press and hold CTRL key down when brushing and move pen smoothly over screen at a reasonable speed. Use the CTRL key as you would lift a brush from paper when painting normally.
Press Q key to leave this option and to return to the **MAIN MENU**.

### COPY
1. Select COPY option.
2. Place 1st.cursor at bottom left hand corner of area to be copied.
3. Press CTRL key to set cursor.
4. You may now PIN POINT cursor by using the CRSR keys. When cursor is PIN POINTED press CTRL key to lock 1st.cursor in position.
5. Move 2nd.cursor to top right hand corner of area to be copied.
6. Press CTRL key to set 2nd.cursor. Dynamic banding box of area to be copied will now appear on screen.
7. You may now PIN POINT 2nd.cursor by using the CRSR keys. When cursor is PIN POINTED press CTRL key to lock 2nd.cursor.
8. Select size of COPY required from the COPY menu which will now appear on screen.

9. Move cursor to a point at the bottom left hand corner of the area in which you wish copy to be drawn.
10. Press CTRL key to set cursor.
11. You may now PIN POINT cursor by using CRSR keys. When cursor is PIN POINTED press CTRL key to lock cursor and to produce COPY on screen.

You may repeat this option as often as required.

Press Q key to leave this option and to return to the **MAIN MENU**.

NOTE. If you wish to change the colour of anything drawn on screen you may do so by using the COPY option with the pen colour required.

## WASH

Example of use:—
1. Draw a line using Pen 1 in GREEN.
2. Draw a line using Pen 2 in GREEN.

Draw these lines so that they intersect each other.

3. Change colour of Pen 2 to PINK.
4. Select WASH option on **MAIN MENU**.
5. Select WASH PEN on WASH menu which will now appear on screen.
6. Watch as results appear on screen.

NOTE. To wash a pen in background colour I/E ERASE the current pen — select ERASE PEN on WASH menu. No matter how many colours have been used with current pen they will all be changed to current pen colour when WASH option is used leaving other pens untouched.

## SAVE

1. Select SAVE option.
2. Select TAPE, DISK or RETURN from SAVE menu.
3. A file name must be entered at this point. Up to 8 characters may be used.
4. Follow instructions on screen. For full details of disk use see the Commodore Disk Users Manual.

## LOAD

1. Select LOAD option.
2. Select option from LOAD menu.
3. Enter file name.
4. Follow instructions on screen. For full details of disk use see the Commodore Disk Users Manual.

To Load and Display a screen without using CADMASTER:—
Load "Screen Name", Device No.1. To Display Screen Type:— SYS22272(return).

## CALIBRATE
1. Select CALI option.
2. Follow instructions on screen.

## PRINT
1. Select PRINT option.
To print screen to CBM 801-803-1000 printers, follow instructions on screen.

## NEW
1. Select NEW option.
2. Select YES at bottom of screen to clear current screen.

## ERASE
1. Select ERASE option.
This option erases last option drawn on screen.

## BORDER COLOUR
1. Select BORD.
This option changes the border colour to current pen colour.

## CURSOR COLOUR
1. Select CUCO.
This option changes cursor colour to current pen colour.

## PEN 1-2-3.
Example:
1. Select Pen 1.
2. Select colour Blue.
3. Select Pen 2.
4. Select colour Green.
5. Select Pen 3.
6. Select colour Red.
7. Draw line on screen using DRAW option.
8. Select Pen 2.
9. Draw line on screen using DRAW option.
10. Select Pen 3.
11. Draw line on screen using DRAW option so that lines all intersect at several points.
Note that where lines intersect the colours do not merge as would have happened if only one Pen had been used.

## BACKGROUND COLOUR
1. Select BACK.
2. Select colour.
Note:— The pen will only draw on a bright colour and will NOT draw over black. You may draw on a bright colour and if a dark background was required simply change the back-

ground to black or any other colour. The BACKGROUND colour can also be used to draw shapes on top of other pen colours or to erase.

## COLOUR OPTIONS

The two columns at the right hand side of the menu allow you to select any of the 16 colours for the various options.

**Use this voucher if you require a copy of the TROJAN CADMASTER program on disk.**

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NAME . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

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Please send me a disk copy of the
CADMASTER program.

I enclose a cheque/postal order to the value of £3.50 which includes VAT and post & packing.

**TROJAN PRODUCTS**
**166, Derlwyn, Dunvant, Swansea SA2 7PF**
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