

# ShareData

# Utility Cartridge

## INSTRUCTION MANUAL

*All these functions on one cartridge!*

\* disk status  
 \*A auto nbr/re-nbr  
 \*B block read/write  
 \*C cpy/rstr fl/dsk  
 \*D delete lines  
 \*F show free memory  
 \*G get directory  
 \*L show load addr  
 \*P print seq file  
 \*T text editor  
 \*U un-new  
 \*X print screen  
 \*\* send DOS command  
 \*# new wdg#  
 \*= new drive/wdg#  
 \*+ new border color  
 \*- new screen color  
 \*? get command menu  
 \*/ load program

\*@ load ml program  
 \*↑ load + run program  
 \* save program  
 \*: load seq file  
 \*; save seq file

### UNLISTED COMMANDS

SYS49152

\*Q disable wdg  
 \*! reset  
 \*£ new character color  
 \*, load user file  
 \*. save user file



Another quality product from  
 ShareData, Inc., Minneapolis, MN 55344

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## TIPS

1. Insert Cartridge with C-64 OFF.
2. All Utility Cartridge commands, except Disk Status, are preceded by an asterisk and entered with the RETURN key.
3. RESET BUTTON resets computer and gets the command menu.
4. SYS49152 command restarts the Utility Cartridge and does not interfere with program in memory.
5. \*! disengages the Cartridge and brings up cold start screen.
6. \*U (UN-NEW) recovers BASIC program after RESET BUTTON has been pressed.
7. Use LOAD "MENU",8,1 to load and run any Share Data, Inc. software products.
8. If you are using a Cardco printer interface an I/O ERROR #5 may appear on the display screen. To remedy this, enter the print command twice. For example, to print the screen enter \*X\*X.

## INTRODUCTION

The Utility Cartridge saves you time and energy. In just two keystrokes you can perform BASIC functions that normally take several steps to complete. A RESET BUTTON lets you reset the computer without turning your computer off and on. Also, with machine language monitor software you get 30 additional machine language programming commands.

This document is designed to give you more information about the Cartridge commands. If you have any questions about programming consult a C-64 programming manual.

## RESET BUTTON

The RESET BUTTON is located on the top end of the Cartridge. Use it when the computer locks-up. Pressing the button resets the computer, brings the screen back to cold start and recalls the command menu. If you were working on a program when you pressed the RESET BUTTON use the \*U (UN-NEW) command to recover it.

## LOADING AND RUNNING THE SHARE-DATA UTILITY CARTRIDGE

We recommend you follow the steps listed below to load and run the Utility Cartridge. Except for step 4, these instructions are similar to those in your C-64 User's Manual.

1. Turn OFF your C-64 computer before you insert the Cartridge. IF THE COMPUTER IS ON YOU MAY DAMAGE THE COMPUTER AND CARTRIDGE.
2. Firmly insert the Cartridge, LABEL SIDE UP, in the slot on the back of your computer. It will click into place. DO NOT

## FORCE THE CARTRIDGE INTO THE SLOT

3. Turn ON your computer. The Cartridge automatically loads at this point.
4. The Command Menu will appear on the screen.

You may select any of the 28 commands on the menu or choose from the unlisted commands in this guide. ALL COMMANDS, except disk status, ARE PRECEDED BY AN ASTERISK (\*). After entering a command press the RETURN key.

### COMMAND MENU

\* (DISK STATUS): Reads the error channel of the disk drive and prints an error number on the screen. See your disk drive manual for more detailed descriptions of the error numbers.

\*A (AUTO NBR/RE-NBR): Automatic line numbering and re-numbering for BASIC programs.

\*A,number: This command automatically assigns line numbers to individual lines. Any whole number increments as a multiple of itself. A syntax error appears if line numbers go beyond 63999. The cursor is moved to one space following the line number. The command is disconnected if you hit RETURN twice or when an operation is performed other than editing or entering program lines.

\*A,number,number: Use to renumber a BASIC program residing in the C-64. The first number represents the number you want your first line to be. The second number is the line increment. GOTO and GOSUB commands are readdressed to their proper locations.

\*B (BLOCK READ/WRITE): You must load machine language monitor software for this command to work. When entering track and sector numbers, specify they are hexidecimals by placing a \$ before the number.

\*BR,\$track,\$sector: Reads a sector of data from the disk, displays the location of the buffer where the data is stored and engages the machine language monitor software.

\*BW,\$track,\$sector: Writes a sector of data from C-64 memory to a specified sector on the disk. It is generally used after \*BR where you have modified data and want to write it back to the sector. A screen prompt asks you to confirm your intent to write. Before responding, make sure you have an extra copy of the disk you are writing to.

\*C (CPY/RSTR FL/DSK): This copy and restore command does not support relative files or copy open files.

**\*C:filename:** Use to make copies of single files. **FORMAT** a destination disk to copy your file on. Remove the disk from the drive. Insert the disk that contains the file you want copied (source disk). Enter the **\*C:filename** command and press **RETURN**. The file will load into memory. The screen prompts you to remove the source disk and insert the destination disk. If a file exceeds the memory area a screen prompt appears asking you to insert the source disk and begin the procedure over again. Continue until the entire file is copied.

**\*C:filename:** Recover a scratched file.

**\*C:filename,seq:** Changes a file to sequential format. ←

**\*C:filename,prg:** Changes a file to program format. ←

**\*C\*:** Makes a copy of the entire disk rather than just a single file. **FORMAT** a destination disk. You may need to alternate between the original and destination disk until the procedure is completed. All sectors allocated as files in the BAM (block availability map) are copied.

**\*C\*\*:** This command copies the entire disk as is, whether or not sectors have been allocated in the BAM (block availability map).

**\*D (DELETE LINES):** Deletes a specified range of program lines. This command also clears variables. Line number values must be decimals.

**\*Dline number–line number:** Deletes all lines within the specified range. For example, **\*D300-450** deletes program lines from 300 to 450.

**\*D-line number:** Deletes all lines from 0 to specified line number. For example, **\*D-300** deletes all lines from 0 to 300.

**\*Dline number–:** Deletes all lines from a specified number to the end. For example, **\*D200-** deletes all lines from 200 on.

**\*F (SHOW FREE MEMORY):** Displays the amount of usable memory left in your C-64.

**\*G (GET DIRECTORY):** Prints the disk directory to the screen. If you want to slow down the display press **CTRL**. Pressing any other key will terminate the listing.

**\*L (SHOW LOAD ADDR):** Displays the load address in hexadecimal and decimal. The numbers show the memory location where your program starts.

**\*L:filename:** The number displayed will be the load address of the program.

**\*P (PRINT SEQ FILE):** Prints a sequential file to the screen or printer. CTRL slows the screen display.

**\*P:filename:** Press any key to pause the display. Once paused, press X to terminate the display.

**\*T (TEXT EDITOR):** This function is useful for writing sequential files or small documents like memos and letters. You can use the text editor even if you are editing a program in memory. You have 8 pages or 481 lines to work with. Before you create a file or document, free-up as much memory as possible by typing NEW prior to entering \*T. You can go from the text editor to the cartridge command menu without losing your document. Simply press RUN/STOP to get back to the text editor menu. Then press 8 (exit to BASIC) from the text editor menu and \*7 (GET COMMAND MENU). Avoid using the TEXT EDITOR on non-ASCII files. This may confuse the EDITOR and overwrite the current file. To print files on a CBM printer they must be in CBM format. ASCII files can be loaded \*: and saved back \*; as CBM files. Text should be saved with the appropriate number of lines per page (with or without paging carriage returns).

1. clear text: Before you edit text, clear the area in the computer's memory where text is stored by pressing 1 and RETURN. A prompt asks you to confirm the memory just in case you may have forgotten to save your text. Enter Y (yes) if you want text erased or N (no) if you need to go back and save the text. A screen of garbage or ?FORMAT ERROR appears if the text memory was not cleared.

2. set margins: Margins and page length are preset to left 5, right 75, and 66 lines. You can change the preset margins and page length by enter #2 from the editor menu. A screen of garbage or ?FORMAT ERROR appears if margins are set to illegal values (left > 77 or too close to the right and right > 80).

3. edit text: When the memory has been cleared and margins and page length set you can begin writing. The standard 80 character column line is displayed as 2 lines between margin markers. They show where lines begin and end. A status line at the bottom of the screen identifies which page, line and column the cursor is on. The parsing feature lets you type without watching the screen and edit the previous line without moving text onto the next line. Parsing does not operate on words longer than 10 characters. Watch for shifted spaces. The text editor interprets them as characters. Pressing RETURN puts you onto a new screen line. CRSR <- and -> and HOME function normally. CRSR ↑ and ↓ moves the cursor 2 screen lines at a time.

Moving the cursor past the bottom of the screen scrolls text forward. Reverse scrolling happens when the cursor is moved to the top of the screen. If you reach the end of available memory, forward movement stops. This also applies to reverse movement at the top of the screen. INST and DEL work as expected but only on the current line.

DEL erases characters as it moves to the left. To delete part of the previous line move the cursor there with CRSR left. Then you may continue deleting. INST pushes all text into the right margin. Text pushed into the right margin cannot be recovered. CTRL D deletes the current line and draws all lines in to close the gap. CTRL I opens a blank line and pushes all lines forward from the current line on. Holding down CTRL D or CTRL I allows you to delete or insert large portions of text. To merge text from one document to another place the cursor at the point in the original document where you want the inserted document to begin. Press RUN/STOP for the text editor menu and load (4 or 5) to insert the file.

4/5. load CBM/load ASCII: Clear the text memory (1) before performing this command or the EDITOR will combine old and new files. If the file was not written using this text editor, the margins will default to 0 left and 80 right. Then the TEXT EDITOR assigns the margins you have set to that file. This is useful for creating or editing source files for an assembler. After the load is completed you are returned to the TEXT EDITOR menu. Pressing RETURN puts you back into the EDIT mode again.

6/7. Save CBM/save ASCII: Files saved by the TEXT EDITOR have information for setting up left and right margins. Blank lines are saved as carriage returns for CBM files or linefeeds for ASCII files. Carriage returns are also added at the end of each page to provide perforation skips for the printer. The EDITOR assumes each page has 66 lines. If the page length is less than 66 lines, unused lines are added as carriage returns at the end of each page. If you do not want these added to your file, reset the lines to 66 before saving the file.

8. exit to BASIC: This function returns you to BASIC. Entering \*? (GET COMMAND MENU) will get you back to the command menu. You may simultaneously edit a BASIC program in regular memory and text in the EDITOR memory.

\*U (UN-NEW): Recovers a program after a NEW or RESET. It will not work if you have already loaded another program.

**\*X (PRINT SCREEN):** Makes a hard copy of the current text screen on the printer. You can enter this command from anywhere on the screen. However, avoid entering it on the last line because the top line scrolls off the screen and will not appear on your printout. Upper- and lower-case characters and basic graphics (if they are not reverse video) printout. This command works with most Commodore compatible printers.

**\*\* (SEND DOS COMMAND):** This command sends any text following the asterisks to the disk drive as a DOS (disk operating system) command.

**\*\*N:diskname,id:** Formats a new disk or reformats an old disk. **CAUTION!** This command erases all data on the disk.

**\*\*I:** Updates drive memory to match current disk.

**\*\*S:filename:** Scratches a file from disk.

**\*V:**Reallocates disk blocks previously used by programs that have been scratched or purged.

**\*\*R:newname = oldname:** Renames a file in the directory. Check the directory to see there is not an asterisk(\*) before the file type. This command does not work with OPEN files.

**\*# (NEW WEDGE NUMBER):** Reassigns the Cartridge device number so you can use it with another disk drive and lets you read or write to the designated drive. You should specify the device number as a decimal from 8 to 12. For example, **\*#9** changes the Cartridge from device 8 to 9.

**\* = (NEW DRIVE/WDG#):** Reassigns the Cartridge and disk drive number you are presently working with. Turning the computer off invalidates this command. Device numbers should be decimals from 8 to 12. For example, **\* = 9** changes the drive number to 9 and sets the Cartridge to communicate with device 9, the disk drive.

**\* + (NEW BORDER COLOR):** Changes the border color using the color codes (0-15) listed in the C-64 User's Manual. For example, **\* + 5** makes the border green. You can give this command without a number. If you do, the color will be incremented to the next highest number. If you turn the computer off or press the RESET BUTTON, the border color defaults to blue.

**\* - (NEW SCREEN COLOR):** Changes the screen color. It works the same way as **\* + (NEW BORDER COLOR)**.

\*? (GET COMMAND MENU): Displays the command menu for quick reference.

\*/ (LOAD PROGRAM): Loads a BASIC program from the disk to the C-64/

\*/filename: Loads the requested program so you can list or run it.

\*@ (LOAD ML PROGRAM): Loads a machine language program. The SYS (start address) is usually the same as the Load Address. See the \*L command for more information.

\*@filename: Loads the requested machine language program. However, you must use the SYS number of the machine language program to run it.

\*↑ (LOAD + RUN PROGRAM): Loads and runs a BASIC program.

\*↑filename: Loads and runs the requested BASIC program.

\*← – (SAVE PROGRAM): Saves a BASIC program.

\*← – filename, address 1, address 2: Address 1 is the start of the save. Address 2 is one byte more than the last address included in the save. Addresses can be hexadecimal if preceded by \$. If not preceded by a \$, the address will be taken as decimal.

\*: (LOAD SEQ FILE): Loads a sequential file.

\*:filename: Loads requested sequential file to the screen for editing.

\*; (SAVE SEQ FILE): Saves a sequential file.

\*;filename: Saves an edited sequential file back to disk.

## UNLISTED COMMANDS

SYS49152: If you have discontinued using the Cartridge to perform some other computer operation typing SYS49152 will reactivate the Cartridge. This command does not affect a BASIC program. To verify if the Cartridge is working enter \*? (GET COMMAND MENU). The command menu will appear on the screen. If you have typed SYS49152 and it doesn't work, something has probably overwritten the Wedge. Pressing the RESET BUTTON will restore the Cartridge functions, but it may then overwrite the program that interfered with it.

\*Q (DISABLE WDG): Disengages the Cartridge. Doing this will allow programs that use memory location C000 to operate

correctly. If you want to use the Cartridge again enter SYS49152 or push the RESET BUTTON.

\*! (RESET): Disengages the Cartridge and brings the computer back to the Commodore screen.

\*£ (NEW CHARACTER COLOR): Changes the character color using the color codes (0-15) in the C-64 User's Manual. For example, \*£8 will change the character color from the start-up color (light-blue) to yellow. You can give this command without a number. If you do, the color will be incremented to the next highest number. If you turn the computer off or press the RESET BUTTON you will have to re-enter this command.

\*, (LOAD USER FILE): Loads a user file the same way as a sequential file(\*:). Primarily for DOS (disk operating system) programming. More information is available in your disk drive manual.

\*. (SAVE USER FILE): Saves a user file the same way as a sequential file(\*:). Primarily for DOS (disk operating system) programming. More information is available in your disk drive manual.