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CLONE MACHINE FOR THE 1571

Micro-W.
DISTRIBUTING, INC.

Congratulations on purchasing one of the most advance copiers for the Commodore 128 computer and 1571 disk drive. Many month of research have gone into developing this copier. Before we start, I must say a few words about copying software. This software has been designed strictly to allow the user to make legal archival backups. When copies are made and distributed illegally, the software industries losses money. If this happens, software authors may be turned away from developing software.

Getting Started:

There are many disputed suggestions concerning power procedures. We recommend you use the following:

- 1) Make sure that only the 1571 disk drive is connected to the serial bus.
- 2) Turn on the disk drive and insert the Clone Machine disk.
- 3) Turn on the monitor or T.V.
- 4) Turn on the computer.

Main Menu:

After 15 seconds the main menu will appear. This menu has been designed with ease of use in mind. If you did not notice, the first option in the menu has been highlighted. To highlight one of the others options, use the CRSR key or 2 of the 4 arrow keys at the top of the keyboard. Only the up and down keys may be used. It does not matter if you use the CRSR or arrow keys. The program considers them as the same keys. Once you have highlighted the options you like press **RETURN** or **ENTER**. Again, It does not matter which key you use, it is all the same to the program. To get the feel of the program, lets try to look at the directory of our disk. To do this, highlight the DIRECTORY option and press **RETURN** or **ENTER**. A sub-menu will now appear. For now, just press **RETURN**. A directory of the disk will now appear on the screen. Press **ENTER** to return to the main menu.

Nibble Copiers:

Nibble copiers are the heart of the Clone Machine. You will be using these to duplicate most of your protected disks. Use the file copier to copy unprotected disks. When you highlight the NIBBLE COPIERS option, a sub-menu with 5 more option will appear. You are offered a choice between 3 GCR copiers and 2 dual drive nibblers. Of the three GCR copiers, A should be used the most often because it copies most of the protections. If it fails, try one of the other two copiers. Sometimes it may become necessary to copy most of the disk with copier A and a track or two with one of the other copiers. If you are having a problem, call us on our helpline. Getting back to copiers, the dual drive nibblers require two 1571 disk drives. These copiers will not copy as many protections as the GCR copiers, but they will copy faster. Before you use the dual drive copiers, the device number on one of the drives must be changed to 9. See the 1571 users guide for information on how to do this.

GCR COPIERS:

Highlight one of the three GCR copiers from the sub-menu and press **RETURN**. After a few seconds, you will be asked to enter the starting track. This is track from which the copier will start reading. This usually is 1, but it may be changed if needed. Next, you will be asked to enter the

ending track. This is last track the copier will copy. This is usually 35 but it may be changed as needed. To copy protections which require the drive to go beyond track 35, you will have to change this value accordingly. You may call our helpline if you need help with this. The program will now prompt you to enter the tracking. By tracking, we mean the space between tracks. This usually is left unchanged at 1 but if you need to copy half-tracking, enter a .5 . Next, you will be asked to select which side of the disk you wish to copy. To copy a C-64 disk, enter 0. If you wish to copy a double sided C-128 disk, then copy side 1 followed by side 0. The next two parameters are usually left unchanged. If you find that your copy has errors that were not on the original, then change one or both to a higher value. Any integer from 1 to 3 may be used.

In a second, you will be asked to place the original disk in the drive. Place the disk which you wish to make a copy of in the drive and press **RETURN**. About a minute later, the program will ask you to place the destination disk in the drive. Place an empty disk in the drive and press **RETURN**. It may take the program much longer to write a track than it took to read one. The previous two messages will be repeated until the disk has been copied.

DUAL DRIVE COPIERS:

Two 1571 disk drives may be used to make fast copies of some types of protected software. There are two dual drive copiers available. If need to copy side 0 only, then select DUAL NIBBLER SD 0. If need to copy both side 0 and 1, then select DUAL NIBBLER SD 0 & 1. Before pressing **RETURN**, make sure that drive 9 has been turned on. When the program is loaded, there will be a 30 second pause before you are asked to start the copiers. This pause is to set up the drive memory. The source disk should be placed in drive 8 and the destination in drive 9. Press **RETURN** to start the duplicating.

DENSITY COPIER:

Some of the newer programs have density alteration as protections. The density copier was designed to allow you to copy these protections. Since parameters are required to use this option, call our helpline if you wish to use this option. A discription of the density copier is provided for the more advance users.

It is very difficult for a copy program to automatically find the densities of a track which has been protected with multiple densities. The density copier allows the user to enter the different densities and compensate for the lack of automation. Since it is difficult for most users to find out where and when the density changes, we suggest that average users skip the following section.

Select the DENSITY UTILITY option from the main menu. When the program has loaded, it will ask the user to enter the number of the track which he wishes to copy. Enter a value from 1 to 40.5 and press **RETURN**. Next, you will be asked to enter the header in GCR. Enter the header without any spaces. If you do not know what the header is, then type 5252525252 and press **RETURN**. Next, the program will ask you to enter the density of the header. If you do not know the density, then you will have to try all four values until you have satisfactory results. The program will now report how many sync marks it found after the header. If the header you entered was not on the disk, the program will tell you it found 0 sync marks. The program will now ask you to enter the density of each sync

mark. Once you have entered all the densities, you will be presented with two options. You may write the track to another disk or go to the monitor to look and modify the GCR data. To look or modify the data, press **M** and the monitor will now be activated. To look at the data, use the MEMORY command of the monitor. The data is stored in 1K increment starting at \$3000. The data is valid until the first null byte (\$00). You may change this data if you need to by typing over it. When you are done, exit the monitor and type **GOTO 1260**. You will now be presented with the same option as before.

DIRECTORY:

To look at the directory of a disk, place the disk in the drive and select the **DIRECTORY** option from the main menu. A sub-menu will now appear with two more options. To look at the directory of a normal disk, just press **RETURN**. If the disk you are using has a directory on side 1, you may select that option.

C-64 Clone Machine:

A version of the C-64 Clone Machine has been provided for those individuals who are familiar with this product and which to use it. Not all the features of C-64 Clone Machine work with the 1571 disk drive. There are many utilities for C-64 which may be used. If you wish to use this option, highlight it and press **RETURN**.

Scratch:

To scratch a file off one of your disks, select this option from the main menu. Enter the name of the file you wish to scratch and press **RETURN**. Wild card matching may be used, but we suggest that you do not use it because it may delete more than one file. For example, if you typed **A***, all files whose name starts with **A** will be deleted. If there were any error during scratching, the program will report them. Press **RETURN** after the error message is displayed to get back to the main menu.

Rename:

If you need to rename a file on the disk, select the **RENAME** option from the main menu. When prompted, type the name of the old file and press **RETURN**. You will now be asked to enter the new name. Type the new name and press **RETURN**. If any errors occurred during the renaming process, the program will report them. Press **RETURN** to go back to the main menu.

Format:

Upon selecting this option from the main menu, you will be presented with a sub-menu. Highlight one of the four options and press **RETURN**. If you need to return to the main menu, highlight that option and press **RETURN**. There are three different types of formats available on the 1571. The first type of format is the regular 1571 double sided format with 1328 block free. The second type is a 1541 format which only

formats on side 0 and has 664 blocks free. The third is a special type of format which is only readable on the 1571. It is similar to the 1541 format because it has 664 blocks free. The difference is in which side is formatted. The third option formats side 1. This format CAN NOT be read on a 1541. Once you have selected one of the three formats, the program will ask you for the disk name. The name may be a maximum of 16 characters long. Type the name and press **RETURN**. Now, you will be prompted to enter a 2 character ID. Type it and press **RETURN**. Depending upon the type of format used, it may take up to 2 minutes for it to format. Press **RETURN** when prompted to go to the main menu.

Auto Boot Creator:

If you would like to have the first program on your disk automatically run when the computer is turned on, then select the Autoboot Creator option from the main menu. You will be presented with a sub-menu which has two options. You can create an autoboot disk for the C-128 mode or for the C-64 mode. Select one of the options from the sub-menu and follow the instruction presented on the screen.

Expansion System:

Since no copier can copy 100% of all protected software, an expansion system has been developed to overcome this problem. New expansion modules will be offered by **MICRO-W** from time to time. To receive information on them, you must send in your registration card.

After selecting the EXPANSION SYSTEM option from the main menu, you will be prompted to insert the expansion disk in the drive. As more software become available for the 128, we will be offering separate expansion disks. If you have an expansion disk, insert it in the drive and press **RETURN**. Since there are some expansion files on your Clone Machine disk, just press **RETURN**. Once the expansion menu has been loaded, press the number of the program you wish to copy and follow the directions on the screen. Inclusion of these expansion files in no way indicates that this software may be legally backed up. They have been included for educational purposes only and when in doubt, you must check with publisher of the software to determine if you can legally copy it.

File Copier:

If you need to copy a file from one disk to another, select this option from the main menu. After a few seconds, the program will present a sub-menu with 3 options. If you select DIRECTORY, the directory of disk in the drive will be printed on the screen. If you select MAIN MENU, the computer will be rebooted. If the Clone Machine disk is in the drive, it will load in the main menu. If you select COPY FILE, the name of the disk will be printed. It will now read in the name of each file on the disk and ask you if you wish to copy it. Press **N** to get the name of the next file. Press **Y** if this is the file you wish to copy. The program will now load the file into the memory. The program will not properly copy a file that is longer than 380 blocks. Once the file has been loaded in memory, it will ask you to place the destination disk in the drive. Do so and press **RETURN**. Once the copy is complete, the file copy menu will appear again.

Sector Copier:

A sector copier has been provided to allow you to make backups of unprotected software. To use this copier, take the Clone Machine disk out of the drive and reset the machine. After the **READY** prompt appears on the screen, type the following and press **RETURN: RUN "SECTOR COPIER"**

When the program finishes loading, you will be presented with a menu of three options. Highlight an option and press **RETURN**. The **DIRECTORY** option will give you the directory of the disk in the drive. The **format** option will allow you to format a disk in 1571 format. When you select this option, you will be asked to insert the source disk. The program will get automatically get the ID from the source disk. It will then ask you to insert the destination disk. This is the disk that will be formatted. The third option will allow you to copy a disk. Since this copier DOES NOT format will it copies, you must have a preformatted disk. upon selecting this option, you will be asked to enter the starting track. Normally, this is 1, but it may be changed if need. Next, you will be asked to enter the ending track. To copy a single sided disk , enter a 35. To copy a double sided disk, enter a 70. The program will now ask you to insert the source disk and press **RETURN**. After you have inserted the source disk, press **RETURN**. Once the memory of the computer is full, it will ask you to insert the destination disk and press **RETURN**. Place a formatted disk in the drive and press **RETURN**. The program may ask you to insert the source disk again if it has more tracks to read. Keep doing this until the entire disk has been copied.

If you have a disk in which some unwanted error appeared, this copier will try to remove them. There is no guarantee if data that it recovered will work.

HELPLINE

A helpline is now available if you have any questions concerning the 1571 Clone Machine. Call (201) 545-1571 on Tuesdays and Fridays after 1 PM eastern time. To speed your call, have the serial number of your disk ready before calling.

I would like to thank Rich, Rajat, K.C., and Morgan for their help during the development of this product. And special thanks to Mark, for without his constant interruptions, this software could have been finished much quicker.

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MANUAL FOR 1571