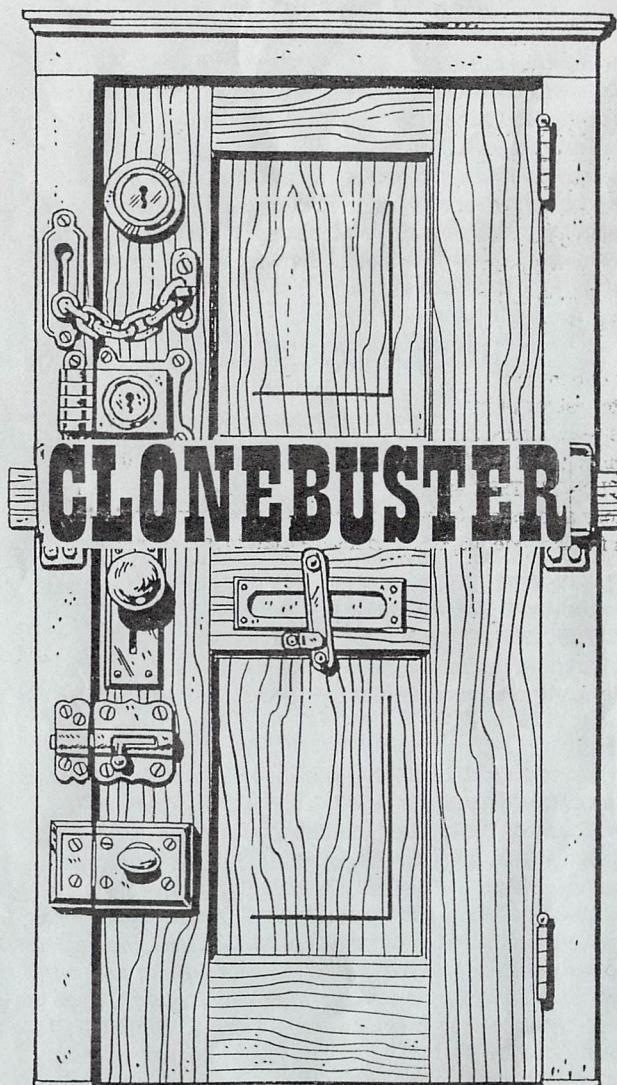


Insert cartridge upside down,
not like the tell you in instructions



IMPORTANT MESSAGE- THIS CARTRIDGE HAS BEEN DESIGNED STRICTLY TO MAKE A LEGAL ARCHIVAL BACK-UP OF YOUR OWNED SOFTWARE. SOME STATES MAY CONSIDER THIS PRACTICE ILLEGAL AS THE SOFTWARE THAT YOU WANT TO BACK-UP MAY BE UNDER LICENSE FROM THE ORIGINAL PUBLISHER. WHEN IN DOUBT, CHECK WITH THE PUBLISHER OF THE SOFTWARE THAT YOU WANT TO BACK-UP. NEITHER THE AUTHORS, DISTRIBUTOR, OR DEALER ASSUMES ANY LIABILITY FOR MISUSE OF THIS PRODUCT.

CLONEBUSTER

That's Right. Now you can unprotect the CLONE MACHINE™ and lots of other software. Removing the protection from software will provide you with no more head chatter and strange booting that takes forever. Since virtually all protection takes place during the loading procedure, CLONEBUSTER™ simply bypasses the load and captures the memory section that the program resides in. The cartridge is invisible to the software and with a simple push of the cartridge button and the push of a key, you can save the file as an autoload file. Now you combine software on one disk and easily backup that difficult to backup software.

INSTRUCTIONS

There are five keys to concern yourself with when using CLONEBUSTER™:

- 1) THE CARTRIDGE BUTTON - Freezes the computer at screen that is currently in memory.
- 2) THE F1 FUNCTION KEY - This key starts the analysis and saves the memory.
- 3) THE F3 FUNCTION KEY - This key clears the computers memory.
- 4) THE F5 FUNCTION KEY - This key acts as a FORMAT key to format a disk so that the file can be copied to it.
- 5) THE F7 FUNCTION KEY - This is the ABORT/RESUME key. If the button on the cartridge has been pressed before the desired screen has appeared, you can generally (but not always) continue after this key is pressed.

To start the procedure, make sure that you have a formatted disk with at least 273 blocks free. This is your target disk. Make sure that the Commodore is turned off and insert the cartridge with the CLONE BUSTER™ label facing UP (or toward you on the portable). Turn on the computer and press the button on the CLONEBUSTER™ cartridge. The screen will then go blank. Now press the F3 key and the message "Cleared" and a blinking cursor will appear on the screen. It's now time to load in the original disk. (*It's always a good idea to write protect this disk to prevent inadvertently destroying or writing over the original.*) When the program has finished loading, press the button on the CLONEBUSTER™ cartridge (this should be the first important action screen or secondary screens after the introduction and/or instruction screens). This will blank the screen to the current border color. Now remove the original program disk, turn off the disk drive for a few seconds and then turn it back on again (on the SX push the drive reset button). Insert the blank target disk and press the F1 Function key. Soon the message "WORKING" will appear. Just in case you may have forgotten to format a new disk, pressing the F5 key instead of the F1 key will format the blank disk first.

At this point the computer will take a few minutes to respond. Soon a message will appear prompting you for two characters by which to identify the new files. Type in the two characters and press RETURN. The message "00,ok,00,00" should appear indicating that the procedure has been correct so far. Now you will see "RENAMING FILES" appear on the screen. After about another 20 seconds, you will be asked for a new name for the boot file. Give it any name that you desire that is 16 characters or less (the original program name is sufficient) and again press RETURN. When everything is done, the message "PROCESS COMPLETED" will be on your screen. To load in this disk, simply type in... LOAD "(your new boot file name)",8,1 and press return. Take note that some programs contain a number of files and this particular procedure has only copied one file. Check the original program disk for the inclusion of additional files that must be present to execute the complete software package.

ADDITIONAL CONSIDERATIONS

CLONEBUSTER™ will work on virtually all software that loads entirely into the computers memory. There are some programs that may pose some difficulty including the following:

- 1) Programs that may do a protection check well into the execution of the game. (This is a prime example of the kinds of software that the CLONE MACHINE will do a better job with)
- 2) Programs that use the internal memory of the 1541. (Another candidate for TNU & Super Clone). To check this out, just turn the disk drive off for a second and then turn it back on. If the program hangs up, you can assume the drive memory contained something.
- 3) Programs that use dongles to boot (there aren't too many left like that)
- 4) Programs that refer back to the disk and look for a specific track and sector for protection (Use the Clone Machine T/B Editor to replace the information or simply make the entire backup with Super Clone or TNU).

STILL MORE !!!!!

Inside CLONEBUSTER™ there is a Code Inspector that will greatly aid all of you that are familiar with machine language. With this section you can interrupt a program at anytime loosing only a few bytes between locations \$0808 and \$0D00 (screen memory). To access this feature, press the button on the cartridge and press RETURN. You will see the following:

- 1) Program Counter (PC)
- 2) IRQ Vector
- 3) NMI Vector
- 4) Stack Register (SR)
- 5) Accumulator
- 6) X Register (XR)
- 7) Y Register (YR)
- 8) Stack Pointer (SP)

Also displayed will be the contents of the following:

- 9) 6510 on-chip I/O Registers (0 and 1)
- 10) Vic II Chip IRQ Mask and Raster Compare latch value
- 11) CIA ICR mask values and timer latch values

You can now (L) load and execute a machine language file from disk. Loading a mach. lang. monitor could be helpful at this point. The software will then ask for the file name and jump address. Loading a program called "XXX" at an entry point of 49152 would proceed as follows:

press L to load then type XXX and press return. At the next prompt press C000 (hex for 49152). CLONEBUSTER™ restores memory between \$0000 and \$0400 to its normal state after a reset BEFORE it loads your mach. lang. program.

The second option (J) will jump to any address point in memory which is a great way to test for proper entry points for a program start up. Just type J and the desired address when prompted. To resume at the last address executed, enter (R) at the JUMP ADDRESS? prompt. Before resuming execution, CLONEBUSTER™ will restore the VIC II chip, the CIA's, and as much memory as possible (remember some low memory was destroyed to make room for the code inspector) to insure that your program will execute.

Pressing (D) will allow you to display memory in HEX by entering the start and end addresses when prompted. Memory displayed in the ranges of \$A000 to \$BFFF and \$D000 to \$FFFF will depend on the state of byte \$01 at the time of program interrupt. The values of the IRQ and NMI will be taken from addresses \$FFFE and \$FFFA respectively if the Kernel ROM has not been banked in at the time your program is interrupted. Memory dumps are to screen only. Pressing the (B) key will return you to basic.

NOTE: These features are for advanced programmers with a complete knowledge of machine language programming. Micro-W will not be responsible to explain or document all of their uses. As we receive suggestions from users, we will make them available to purchasers of CLONEBUSTER.

HELPFUL HINTS- When backing up software that accesses the disk many times, first make a backup of the original program using the 3 minute backup on the front side of the disk. Next, notch out the right protect space on the left side of the backup disk and load the original software. Use the CLONEBUSTER™ to save a copy of the first part of the program on the reverse side of the back up disk. Now all you have to do is boot the disk using the side done by CLONEBUSTER™ and then turn it over to access the files that were copied by using the 3 minute backup. You've now got all of the files on the original disk in two easy steps.

Another way to back up a disk is to use CLONEBUSTER™ to make the boot program on the backup disk and then use The Clone Machine to transfer files from the original to the back up. (hints from Harold R. Chicago. Ill)

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