# Wix otevteli 

"A COMPLETE DIAGNOSTIC FOR YOUR COMMODORE $64{ }^{\circ}$ AND 1541 DRIVE® ${ }^{\text {, }}$


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## MR TESTER INSTRUCTIONS

MR TESTER is a multifunction diagnostic program that will check your system for hardware problems that may cause serious data loss or other types of hardware malfunctions. The diagnostics on this disk will test your disk drive, printer, keyboard, screen, SID music chip and many more hardware related functions. MR TESTER is easy and fun to use because it was written for maximum user friendliness. Please read this instruction booklet before embarking on checking out your C-64.

## LOADING MR TESTER

MR TESTER is extremely easy to load. Simply insert your MR TESTER diskette into drive " 8 lable side up, and type the following:

- LOAD "MRTESTER",8,1

RETURN
that's all! MR TESTER will load and run automatically from there.

## USING MR TESTER

The first question that MR TESTER will ask you, is are you using a black and white monitor (green, amber or anything but color). If you are, simply type a $Y$, if not hit any key. This is very important, because certain tests may contain color outputs which are not visible on black and white screens, so alternate outputs are used.

## TESTING THE COLOR MONITOR

To start: choose option letter 'A' on the main menu,
The test: after the main instruction page is displayed and read, hit any key to enter the actual test. The test will display a $5 \times 5$ grid of colored block. The blocks will move if you hit any key on the keyboard. The program will return to the main menu if you hit any key again.

Interpretation of results: If the colored blocks are all evenly aligned, and the borders are sharp and definitive, then the monitor is working. If the colors are runny or the borders are fuzzy, then the monitor may be improperly adjusted or not operating correctly. Always make sure that you properly adjust your TV or monitor before seeking outside service. Because of the bandwidth and electronic locking circuitry, some televisions will not display the colors and words as sharply as others. This condition does not indicate the need for outside service since your particular television may not have been designed for use with a computer.

To start: choose option letter 'B' on the Main Menu:

The test: The actual memory evauatation algorithm is executed in machine language. A small machine language routine checks each byte of your computers memory for proper functioning. There are two memory tests available on MR TESTER. Option letter ' A ' of the sub-menu performs a comprehensive test of all memory pages (each page is 256 bytes). Option letter 'B' gives you the opportunity to test individual pages selectively.

## TESTING THE COMMODORE 64 KEYBOARD OR SCREEN

To start: choose option letter 'C' on the Main Menu.
The test: The sub-menu has two options. Option letter 'A' of the sub-menu displays a visual image of the keyboard on your screen. Press any letter key and the corresponding block on the screen will light up in reverse. If you do not see the screen immediately respond to your keystroke, there may be a problem with your keyboard. To return to the menu, press the Commodore key, the control key, and the shift key all at once.

Option letter 'B' of the sub-menu is a screen alignment test. A set of concentric rectangles is displayed. Use the horizontal/vertical alignment settings on your monitor/TV until the rectangles are centered property. Press any key to return to the menu.

## TESTING YOUR 1541 DISK DRIVE

To start: Choose option ' $D$ ' of the main menu.

The test: The sub-menu has two options. Option letter 'A' is a short test which writes and reads back one block for each track on the disk. Option letter 'B' is a full test which writes and reads back every block on the disk.

Under either option you will be asked to specify which disk drive number is to be tested (8-11) and are given an opportunity to initialize (reformat) the diskette you are using. The display will show you every block read and whether there are any errors or not. During testing, a visual display of the tracks and blocks is made, a green dot will appear in the corresponding track and block if that block has no error, otherwise a red dot will appear
to indicate an error. If you are using a black and white monitor, a plus sign will appear to indicate no error, and a minus will appear if errors are found WARNInG!!! If you initialize the diskette, all information will be lost. If you try to run the test on an un-initialized diskette, you will get an error indication on every block. If an error occurs during the running of the program, hit any key to continue the test. The F5 key will abort the test.
The 1541 test indicates the proper reading and writing of data to a diskette that is presumed to be good. Error conditions may indicate either a hardware or diskette problem. If repeated tests with a variety of diskettes continue to indicate errors, then the probability exists that there is difficulty with your 1541 drive. This could also indicate however, that you may have purchased a bad batch of floppy disks.

## TO TEST THE COMMODORE 64 JOYSTICK

To start: Choose option 'E' of the Main Menu.
The test: Plug your joystick into either port, but only one at a time. After reading the initial screen of information, press any key to start. Move the joystick in any direction. The action on the screen will be a smooth line in that direction. Press the fire button and see the screen flash in response.

Interpretation of results: If any of these functions does not work smoothly and properly it may indicate a malfunction of the joystick or the port. Test the joystick in both ports (change the plug on the right side of the Commodore 64). If it works in one port but not the other, the problem is probably in the port. If it fails to work in both, try another joystick. If the smooth line eminating from the joystick is not continuous when you are holding the joystick in a particular direction, this may indicate dirty or faulty contacts on the joystick.

## TO TEST THE COMMODORE 64 PRINTER

To start: Choose option ' F ' of the Main Menu.
To test: The initial screen of information tells you to make sure the printer is plugged into the serial port, Make sure you enter the correct device number for your printer (if your printer has options for the device number), and to set your paper in the printer properly. When everything is ready, press any key to start the printing. All combinations of characters in each type of font are sent to the printer. The printed output is self-explanatory. You can examine it in detail to determine if individual
characters may be in error. However, normally you will find that either everything is working normally or you will see mostly all incorrect characters. If you wish to end the printout before it is complete, hold down the Commodore key, the control key, and the shift key at the same time.

NOTE: Not all printer interfaces will pass this test, many will hang up due to the special characters that are being output to your printer. This is not necessarily a problem with a faulty interface, but it does indicate that your printer interface does not respond to all of the characters that the Commodore has the ability to output. The Commodore printer should respond correctly to this printer test and all of the printer interfaces that understand Commodore graphics should also pass this test ( EX. Cardco G., Tymac Connection, Micro-World MW350, and others).

TESTING THE MUSIC CAPABILITIES OF YOUR COMMODORE 64

To start: Choose option 'G' on the Main Menu.

The test: Increasing scales for each of three voices are played automatically. You will see the notes as they are sounded and the voice number is displayed below the scale. The program will automatically return to the Main Menu when all scales have been played.

Interpretation of results: Adjust the sound level until all scales are played with satisfactory results. If there is no sound or erratic sound, there may be a problem with the music features on the SID chip or a problem with the audio section of your TV or monitor. Take note that all televisions may not be specifically designed for computer input and therefore if your sounds seem fuzzy, there may be no problems with any of your equipment. Furthermore, if the scales played are seemingly not in accord with the well known do-re-me-fa-sol-la-te-do theme, then your notes schemes are off.

## TESTING THE DATASETTE

To start: choose option letter ' $F$ ' on the main menu.

The test: the cassette test is a very simple test to use. Simply use a data tape of no apparent value since all data on this tape will be lost, and your Commodore Datasette or equivilant. To test, simply put the cassette in, and follow the instructions given to you by the computer.

Interpretation of results: If the cassette test indicates that an error was found in the read write sequence, try the test again with the same cassette. If there is still an error, try it with a different cassette. If there is still an error, carefully clean the heads of your cassette deck with a cotton swab and a quality cleaning solvent (generally found in most stores that sell music cassettes). Let the heads dry for a while and then try the test again. If there is still an error, your cassette recorder may be malfunctioning or you tape recorder head may be significantly out of allignment.

NOTE: Since the Commodore portable has no cassette port, this test can not be used on this particular computer.

## CLOSING REMARKS

The MR TESTER program should be consulted whenever you feel something is malfunctioning. It should tell you whether your computer has gone haywire, or if the software you are using may seem faulty. To tell the difference, use MR TESTER on the device in question. If MR TESTER finds no errors, then the software you are using is probably at fault; but if a concurrent error occurs, then your device is probably not working correctly. This test is not meant to be a do all/ test all device and although we have thoroughly tested it on many Commodore 64 and Commodore portable computers, it may not be totally correct in all of its analysis due to any changes in equipment that Commodore may institute. We would appreciate hearing from any of our customers if you find any discrepancies in this product.

NOTE: The frequently used code CTRL/COM/SHIFT means that you should hold down the COMMODORE key, the CONTROL key and the SHIFT key together. This measure is a precautionary one, for it is less likely that one would accidently hit this key combination than any other.

