Kracker Jax

PRESENTS

The

MAVERICK v5

AN IMPORTANT NOTE

The Maverick is a very powerful and comprehensive utility system. We're always happy to provide support to registered Maverick owners, but we can't teach you over the phone what this manual is designed to teach you. Before calling for technical support, please re-read the appropriate section of the manual and check the trouble shooting section. Your help in this allows us to serve you better on those occasions when being able to reach our technical staff is required. Thank you.

TABLE OF CONTENTS

IN THE BEGINNING 2
AND ON, TO THE FUTURE 3
SYSTEM REQUIREMENTS 3
PACKAGE CONTENTS 4
UPGRADES 4
GETTING STARTED 4
ALTERNATE SELECTION 5
UNIVERSAL KEYS 5
FAST DATA COPIERS 6
  1541 DUAL 6
  1541 SINGLE 7
  1571 SINGLE 7
  1581 SINGLE 8
  1581 DUAL 9
GCR NYBBLE COPIERS 9
  GCR DUAL 10
  GCR SINGLE 11
  RAMBOard NYBBLER 11
SECTOR MAP EDITOR 13
MAVERICK GCR EDITOR 15
  SOFTWARE BASED 15
  RAMBOard TRACK ED. 18
GEOS TOOL KIT 21
  GEOS PARAMETERS 21
  GEOS SECTOR ED. 22
  GEOS FILE COPIER 24
  GEO * BOOT 25
QUICK FILE COPIER 26
PARAMETER MENU 29
DIRECTORY EDITOR 34
6502 MIL MONITOR 37
UPGRADES & GOODIES 38
  DIRECTORY RECOVER 40
  TRACK & SECTOR ED. 42
  DISK COMPARE 44
  RELATIVE FILE COPY 45
  REU QUICK TEST 46
  64K VDC RAM TEST 46
  FILE TRACER 47
  FILE VIEWER 49
TROUBLESHOOTING 50
RAMBOard INFO 53
SPEED CONTROL INFO 54
CONCLUSION 55
LIMITED WARRANTY 55
CREDITS 55

IN THE BEGINNING

Remember back a few short years ago, when we all thought that 'Pong' was the hottest game ever produced for home use? The cartridge game machines appeared on the scene and the personal computer was here and here to stay. Not long after, 'IT' arrived. 'IT' was capable of not only playing games with its user, but also allowed its user to develop his own programming. 'IT' was the Commodore 64, and before long it became the personal pet of millions of people wishing to join in the age of personal computers. Commercially produced applications such as spreadsheets and word processors started to show up in rudimentary form, and software copy protection was soon to follow.

Software protection has come a long way since the inception of the Commodore computer. Ever since the first commercial software was written for the Commodore, programmers have been dreaming up newer and more potent protection schemes. The purpose of copy protection was to prevent the software authors from becoming victims of piracy. Although most well thought out protection schemes seemed to slow the pirates down a bit, the protected software was eventually broken, and fell into their hands like another stamp in a collection. The result was that most of the software pirates still didn't purchase the software that they finally acquired anyway. The honest consumer DID purchase his software, especially those programs that he decided were a valuable addition to his library. It is this individual that has been the real victim of the software protection wars. If he wanted a backup of his fragile treasured program disk, he had to send extra money to the manufacturer of that product and wait for what seemed like forever to receive his backup. The only alternative was to resort to a myriad of copiers; hoping one of them would do the job at hand. As it turned out, it seemed that the more valuable the program was to the consumer, the harder it was to backup.

For a time, it was a leap frog game between the copier programmers and the protection programmers. A new protection scheme was developed, and all the copier programmers would scramble to be the first to develop a new patch in their copier capable of dealing with that particular protection scheme. This leap frog game went on for a couple of years before the inevitable happened. The protection programmers evolved to the stage that they were able to write protection that just couldn't be duplicated, at least with disk drives available to the end user, even with the most sophisticated nybblers. All purpose, do it all copiers were dead in the water.

What to do? If the copier programmers couldn't write copiers to sense and copy a particular protection scheme then only one solution remained. Break the protection check code. It was early in this stage that Kracker Jax was born. Kracker Jax allowed the user to simply make a fast copy of the protected program and then run a custom parameter over that copy to produce not only a copy of that program, but a copy devoid of protection in most cases. The revolution had begun. Parameters proved to be the most effective way to copy a protected program. Protection schemes that no nybbler could touch could easily be archived by the press of a key. This went on for a couple of years, and again the inevitable happened. Parameter-proof protection. How, you ask? Read on.

Today's protection is made up of three classes of difficulty. 1. A few programs are still released using archaic protection that most modern nybblers can duplicate. Why bother protecting?! 2. Many are still archivable using either a nybbler or fast copier in conjunction with a parameter. 3. Finally, more and more programs are showing up with data written in formats that protects every byte of data on the disk. If the data can't be written out, then a parameter is useless. The Bull's Eye was our first effort at this third level of copy protection. Soon after, the Shotgun II was developed to automate the principals set forth in The Bull's Eye. These two programs have set the standard which imitators have been trying unsuccessfully to duplicate. The revolution started by Kracker Jax has paved the way for the Maverick, the next step in an evolutionary process.

The Maverick is our final archival programming effort in the Commodore 64 market. You're probably thinking to yourself, 'then why did I buy this thing'? Well, for one thing, it already copies almost every protected program on the market today, many of which can't be touched by any other copier, be it software or hardware based. Another reason is the fact that we will be producing new parameters modules as necessary. We even support optional hardware such as The RAMBOard and 1541/71 Speed Controls which, when combined with special copiers, will copy programs that are impossible to archive with software alone. Although the Maverick is our final C-64 copy system, we will continue to guide its evolution to keep it operating at the very edge of possibility. We will be around for years to come, and supporting you is our highest priority.

AND ON, TO THE FUTURE

THANK YOU for your purchase. By purchasing the Maverick, you are supporting our efforts to support you, which has always been our highest priority. Although the Maverick v5 is our final effort in the Commodore 64 archival software market, we will continue to maintain the highest possible level of customer support.

Let's begin by saying that the Maverick itself is not protected. It is capable of archiving itself with its own single or dual fast data copiers. Because of the direct disk access, no files will be found in the directory of the parameter disks. This format has two purposes. First, it helps us to protect our work from other copier producing companies who have in the past, felt that if we allow full view of our parameters we have released our work to the public domain. Some unscrupulous companies feel that they have the right to sell our work as their own. Talk about piracy! This is the worst form. The other and more important reason for direct disk access is the extremely fast loading time. Files that take minutes to load in standard format now take mere seconds. We have found our advanced fast loader system to be extremely reliable on disk drives in good condition. We have tested it and gotten good results with the 1541, 1541 C, 1541 II, 1571, the SX portable computer, and overseas PAL units.

Ownership of the Maverick entitles the owner to one of two levels of support. Both levels REQUIRE you to FILL OUT THE MAVERICK REGISTRATION CARD, which is the 3 X 5 postcard, and send it to Software Support International. Whoever's name (must be an individual - not a User's Group or company) is on the registration card when we receive it is the PERMANENT REGISTERED OWNER of that copy of the Maverick. He is entitled to participate in whichever level of support he desires. The program may be sold to another individual, but the registration may not be transferred. Again, SEND US THE Maverick REGISTRATION CARD as soon as possible to avoid loss. We will notify you by mail as soon as we receive it, confirming your registration.

Level one support is available ONLY to REGISTERED OWNERS. Level one users will be entitled to buy Parameter Module upgrades to the Maverick (available about every three months). These upgrades are available at the price of $9.95 per upgrade disk. The Parameter Module upgrades are only available through Software Support International and will not be sold to non-registered individuals. Level one users are encouraged to exercise their right to call the customer support line if they experience a problem or have questions. We do have a knowledgeable staff on hand that can be of service in most cases. If you've purchased the Maverick and are a Registered Owner, you're supporting us - and we'll be happy to support you!

Level two support is granted to the REGISTERED OWNER that wishes to be put on a subscription basis. Those customers who wish level two support must fill in and send us the yellow Maverick subscription order form, which you'll find in your Maverick package. We accept subscriptions from those REGISTERED OWNERS who will allow us to bill their credit card (sorry but we only take MasterCard, Visa, and Discover) at the time of shipping. (Sorry but we cannot accept COD). Please be advised that because of billing problems, we can only accept this method of subscription payment. Prepays are not allowed. To cancel a subscription, the user need only call or write to us requesting cancellation, which will place them back into level one status.

SYSTEM REQUIREMENTS

The Maverick will operate properly with either the Commodore 64, Commodore SX, or the Commodore 128/128D in 64 mode. It requires the use of one or two disk drives. You may use a 1541, 1541 C, 1541 II, or 1571 in any combination or separately. Many Maverick modules now support the 1581 disk drive - single or dual.

Worldwide Commodore users will be happy to know that The Maverick V5 is completely PAL compatible. All modules have undergone extensive testing and passed with flying colors. Please understand that disk protection varies from country to country and that parameters that are developed for American software mayor may not work on software of the same title in another country.

PACKAGE CONTENTS

The package containing your initial purchase of the Maverick should contain the following items. 1> A Maverick V5 owner's manual. 2> The white master Maverick diskette. 3> Two black Maverick parameter diskettes. One contains Module 1 on the front and Modules 2 through 4 on the reverse. The other parameter disk contains Modules 5 through 7 on the front and Module 8 on the reverse. 4> A black disk containing the Maverick Upgrades & Goodies. 5> The yellow subscription order form. 6> The Maverick REGISTRATION (post)CARD. Take time right now to fill out the REGISTRATION CARD, and send it in before you lose it. THIS IS OF THE UTMOST IMPORTANCE! All owner support services are tied into the registration card. Sending the card in immediately is your key to the ownership rights you deserve.

UPGRADES

As discussed previously, Registered Maverick (and previous Renegade) owners have the right to upgrade to the latest Maverick parameter module. If you have received this package as an upgrade, you'll find a number of changes in the Maverick. We highly suggest that you re-read this manual to acquaint yourself with the refinements and additions we've added to your new Maverick.

A few of the major changes made to the Maverick Master diskette will be found in the general disk format, the Fast Data Copiers, and the GEOS Toolkit (GEO-boot). The Upgrades & Goodies Menu (now on separate disk, with new format) also has a few changes. Check out the Directory Editor, Directory Recovery and the File Viewer. Also we have added a Disk Compare program.

If you've also upgraded to parameter module #8, you have actually received modules number 5 through 8 (Modules 5 through 7 on the front and Module 8 on the reverse). Please note that we have been correcting any problems reported by our users and implementing them on the latest release. Also, please note that ALL our GEOS parameters are on the diskette that contains Module 8. As you browse through our latest parameter listings, you will see that we have again added extensive RAMBOard support. Any parameters that are tagged as 'require 8K RAM' will require a hardware addition to your disk drive. We offer that hardware in the form of a small plug-in board. The RAMBOard requires NO soldering and can be installed by a novice. If you don't have this inexpensive piece of hardware, we strongly recommend it.

GETTING STARTED

To get started, place the Maverick master disk into disk drive device #8, face up, close the door, and type the following command: LOAD "",8 (or current device number),1 . Press RETURN and the program should begin loading. Commodore 128 owners or Commodore 64 owners with Super Snapshot 64 v4 or v5, need only place the Maverick disk into the drive face up and turn the power on. The Maverick will auto-boot to the C-64 mode. In a short time, the Maverick title screen will appear, and moments later, the Maverick menu will dissolve on. The first thing you will notice are the two pointers on either side of the first menu selection. They can be repositioned by pressing the cursor keys. The pointers will follow the direction of the currently pressed cursor key. Any menu selection can be chosen by simply positioning the pointers around it and then pressing RETURN.

The Maverick is composed of ten different modules. Each module is designed to return to the main menu after the selected job is completed. Some modules are comprised of several utilities and some are single utility based. Some selections, such as the Parameter Menu, and the Upgrades & Goodies options require the use of a sub-system Maverick disk.

ALTERNATE MODULE SELECTION METHOD

1 > Fast Data Copiers	6 > Quick File Copier
2 > GCR Nybble Copiers	7 > Parameter Menu
3 > Sector Map Editors	8 > Directory Editor
4 > GCR Format Editors	9 > 6502 M/L Monitor
5 > GEOS Tool Kit	0 > Upgrades & Goodies

Beginning with Maverick v5, we have placed the Maverick Master Disk and the Upgrades and Goodies disk in standard files format. Users who wish to boot a menu option directly from the Maverick directory listing or from a work disk, may easily do so. We have even provided a method of constructing your own menu consisting of your favorite Maverick utilities. See the Upgrades and Goodies section elsewhere in this manual for details.

UNIVERSAL COMMAND KEYS

The following Commands are universal in the Maverick.

F1/F3:

Pressing F1/F3 will display a listing of the directory <or partition> (Source/Destination) of the diskette in the current drive. Pressing the Space Bar while the directory is scrolling will stop the scroll. Pressing the Space Bar again will continue the listing. Use the RUN/STOP key to abort the listing.

F5:

Disk Command: This option gives you direct access to the disk drive without the headache of using the OPEN statement. All standard disk commands are available, **<including the ability to change partitions>**. This option acts as any other standard DOS wedge. There is no need to type the OPEN 15,8,15," portion of the command. Simply type in the command desired at the flashing cursor. For example, to initialize any diskette in the current drive, just type in I0 . **<To initialize a partition or sub-partition, use the / command. As an example, let's say you have a partition on the disk called 'PART 1'. First, select the DISK COMMAND option from the menu. You'll then be prompted with "Command?". At this point type in /PART 1 and press RETURN. You have now initialized the partition called 'PART 1'. Any disk access now concerns itself solely with that partition. To return to the root directory, simply type in / at the "Command?" prompt and press RETURN. To list the directory, use the F1/F3 keys which are active in this mode.>**

F8:

Boot A Disk. Use this function Key to Boot any disk including Maverick. You'll be prompted for desired drive. The default device number will be displayed, but you may select from 8, 9, 10, or 11 using the cursor U/D key. Press Space Bar to execute boot process.

Soft-Wire:

To Soft-wire your drives, use the Cursor U/D key to move the highlight bar to the 'Soft-Wire Drives' option. Press RETURN and you'll be asked to turn off both drives. After turning them both off, turn on the destination drive (the backup disk goes here) and hit the space bar. Next, you will be prompted to turn on the source drive (the original disk goes here) and press space bar again. At this point, if you do not get an error message, your drives are set up correctly. If you do get an error message, turn both drives off and then on again and try the soft-wire procedure once more. Once soft-wired, you shouldn't have to reset the drives again unless you turn the drives off or power down your computer.

FAST DATA COPIERS

Fast data copiers are used primarily to make fast, reliable backups of unprotected software. We suggest that for unprotected software, you use these data copiers rather than nybblers designed to duplicate protected disks.

We strongly suggest that you use the Single Fast Data Copiers for the following conditions:

1> If you need to repair an unprotected disk that has, for example, a 23 error on it.
2> If you have a protected disk that is known to have standard errors on it, and you want to 'clean it up' for breaking purposes, either manually or by parameter. The Single Fast Data Copier has a FULL verify feature built in and is designed to report as well as correct errors found while copying. If it encounters errors while reading the source disk, it will attempt to correct those errors while writing the data onto the copy disk.

From the opening menu select the Fast Data Copier option and press RETURN. You will be prompted to input:

A if you wish to load the Single Drive 1541/71 Copier
B for the Dual Drive 1541/71 Fast Copier
C for the 1571 Single Drive Copier
D for the 1581 Single Drive Copier
E for the 1581 Dual Drive Copier

Let's assume that you have two 1541 disk drives, and begin with option 2.

1541 Dual Drive Fast Data Copier:
Supports The 1541/71 Disk Drives

At the prompt, press B. When the main menu appears, you will be presented with a list of options. When working with two drives, the first thing you may need to do is configure the options to match your system.

If you have two drives that you are capable of changing device numbers on or have permanently changed the numbers, set one drive to device #8 and the other to device #9. If you have two drives, both of which are device #8, use the soft-wire option to set different device numbers in each drive by a software method.

Once back to the main menu, please note the Source and Destination drive options. You may set these as necessary by placing the flashing disk at either option and pressing RETURN to change to the desired configuration. That done, let's make a backup of your Maverick disk itself. Take the Maverick out of the disk drive and be sure you have a write protect tab on it! Any original disk should be write protected before attempting a backup. This reduces the risk of damage to your valuable original software. Place the Maverick disk in the source drive and a put blank disk in the destination drive. There is no need to ever format a blank disk in order to fast copy onto it with ANY of our whole disk copiers. Our copiers format as they go. Now position the highlight bar on the Copy Disk option and press RETURN. You will be prompted to insert disks (check them) and press RETURN. When ready, press RETURN and the drives will take off. After about a minute, a new prompt will appear telling you that the copy is complete and again asking you to press RETURN to continue. The Dual Data Copier menu will reappear. You may check the directory of either the original or the copy disk by pressing F1 or F3 respectively.

F8: Boot A Disk.

One last item you should know about the Dual Data Copier is that the copy process may be aborted by hitting RESTORE. Because the drives are, at this time, independent from the computer, you must turn each drive off and then on again. We suggest reading a valid directory in each drive to re-initialize the drives before attempting another copy.

1541 Single Drive Fast Data Copier:
Supports one or two 1541/71 Disk Drives
Auto-senses and utilizes the 1764/1750 REU or the 64K Video RAM.

From the Maverick main menu select the Fast Data Copier option. When prompted, select A for Single 1541 Fast Data Copier. The Fast Data Copier menu will appear shortly. Use the cursor U/D key to move the cursor bar to the desired option and press RETURN to select that option. Let's go through the menu options one by one.

Copy Disk:
Use this command to begin the copy process after all other menu options have been properly set. If a Ram Expander is in use, and the disk was copied in one pass, you will be prompted whether or not you wish another copy.

Source:
This is the device number of the source drive (original). It defaults to device #8 but may be toggled to 9, 10, or 11.

Destination:
This is the device number of the destination drive (backup). It defaults to 8 but may be toggled to 9, 10 or 11. Even though we call this a Single Drive Fast Data Copier, you may use either one or two drives. To use the two drive option, set the source and destination device numbers to match the setup of your drives. When copying begins, one drive will read and then stop while the other one writes. Just follow the on screen prompts to complete the backup. For those of you with one disk drive set the source and destination numbers at the current device number. For example, 8 to 8 or 9 to 9, starting with the original disk, begin swapping with the copy disk following the on screen prompts until the backup process is complete. Disk errors encountered while copying will be reported as a diamond in the tracks copied display.

Soft-wire:
Soft-wire device numbers on drives.

F1/F3:
Directory

F8:
Boot A Disk.

1571 Single Drive Fast Data Copier:
Supports the 1571 Disk Drive - 1541/71 Formats
Auto-senses and utilizes the 1764/1750 REU and/or the 64K Video RAM.

From the Maverick main menu select the Fast Data Copier option. When prompted, select C for Single 1571 Fast Data Copier. The Fast Data Copier menu will appear shortly. Use the cursor U/D key to move the cursor bar to the desired option and press RETURN to select that option. Your menu options are:

Copy 1571 Disk:
Begin copy process on disk in drive defined by selected device number. When copy is complete, read errors, if any will be reported. If a Ram Expander is in use, and the disk was copied in one pass, you will be prompted whether or not you wish another copy. Follow on screen prompts.

Select Side:
Defaults to BOTH but may be toggled to FRONT which will copy side 0 only.

Device Number:
Defaults to 8 but 9, 10 or 11 may be selected.

Write Verify:
Defaults to ON but may be toggled OFF. When ON, all Read and Write errors will be reported properly. When toggled OFF, only Read errors will be reported correctly.

F1:
Directory .

F8:
Boot A Disk.

1581 Single Drive Fast Data Copier:
Supports the 1581 Disk Drive.
Auto-senses and utilizes the 1764/1750 REU or the 64K Video RAM.

The 1581 Fast Data Copiers included in this package are the most advanced copiers ever produced for the 1581. They will produce flawless copies of your valuable data in a very reasonable time. Please understand that the purpose of the 1581 is a DATA DRIVE. Due to hardware and software limitations, it is quite impossible to copy whole disks from 1541/71 format to 1581 format in anything other than files. For that purpose only a file copier will do.

Our all new Single Drive 1581 Fast Data Copier has many new, time saving features built in. Each track to be copied is examined and placed in the copy buffer only if there is data on that track. Otherwise, the track is formatted. It is conceivable that you can copy a whole disk in one pass. The number of tracks that can be copied in one pass – worst case - is as follows:

Stock machine: 5 tracks per pass
1764 REU in use: 30 tracks per pass
1750 REU in use: 56 tracks per pass
64K Video RAM (C-128 only): 11 tracks per pass

As you copy, remember that there are over 800,000 bytes of information on a 1581 disk. Have patience. If you have two 1581 drives, you will be happy to know that the copying time using the dual drive version is only about 2 minutes.

From the opening menu, select the Fast Data Copier option. You will be prompted to input D if you wish to load the Single Drive 1581 Data Copier. When the Main Menu appears, you will be presented with the following options.

Copy Disk:
Begin Copy process after all other parameters has been set up. The program will automatically test if the source and destination disks are write-protected. Follow on screen prompts. As a result of auto verify, at the conclusion of the copy process any read/write errors will be reported. If write errors are reported, try the copy process again. If a Ram Expander is in use, and the disk was copied in one pass, you will be prompted whether or not you wish another copy. Follow on screen prompts. If a Ram Expander is in use, and the disk was copied in one pass, you will be prompted whether or not you wish another copy.

Device No.:
Defaults to 8, but may be set to 8, 9, 10, or 11.

Starting Track:
Defaults to 1 but may be set anywhere between 1 and 80 inclusive. Use the RETURN key to increment and SHIFT/RETURN to decrement. Hold down to auto - repeat.

End Track:
Defaults to 80 but may be set anywhere between 1 and 80 inclusive. Use the RETURN key to increment and SHIFT/RETURN to decrement. Hold down to auto - repeat.

F1:
Directory .

F8:
Boot A Disk.

1581 Dual Drive Fast Data Copier:
Supports two 1581 Disk Drives.

From the opening menu, select the Fast Data Copier option. You will be prompted to input E if you wish to load the Dual Drive 1581 Data Copier. When the Main Menu appears, you will be presented with the following options.

Copy Disk:
Begin Copy process after all other parameters has been set up. The program will automatically test if the source and destination disks are write-protected. Follow on screen prompts. As a result of auto verify, at the conclusion of the copy process any read/write errors will be reported. If write errors are reported, try the copy process again.

Source Drive:
Defaults to 8, but may be set to 9, 10, or 11.

Target Drive:
Defaults to 9, but may be set to 8, 10, or 11.

Starting Track:
Defaults to 1 but may be set anywhere between 1 and 80 inclusive. Use the RETURN key to increment and SHIFT/RETURN to decrement. Hold down to auto - repeat.

End Track:
Defaults to 80 but may be set anywhere between 1 and 80 inclusive. Use the RETURN key to increment and SHIFT/RETURN to decrement. Hold down to auto - repeat.

F1/F3:
Directory

F8:
Boot A Disk.

GCR NYBBLE COPIERS

Since the first Commodore programmer devised the first copy protection scheme, archival programmers have strived to achieve the impossible: create a copier that could copy any protection scheme. The Maverick GCR Nybble Copier is our attempt at creating the impossible. Although there are several protection schemes that defeat this copier, there are many more that it can backup.

When trying to backup protected software, the nybbler is your greatest single weapon. We feel that our GCR Nybbler is the most sophisticated copier on today's market. Not only can it reproduce all standard DOS errors (used in archaic protection), but it also handles a myriad of other tough protection schemes, one of them being RapidLok. With our GCR Nybbler, you can even copy both sides of a true 1571 formatted disk; no disk flip is required, more on this later.

From the opening menu, select the GCR Nybble Copier option and press RETURN. You will be prompted for (S)ingle, (D)ual or (R)AMBOard Nybbler.

Dual Drive GCR Nybble Copier:
Supports 1541171 Disk Formats.

At the (S)ingle or (D)ual prompt, press D. The program should load to the Dual Nybbler menu. Most of the menu options may be accessed by using the Cursor U/D key to position the highlight bar over the desired function and pressing RETURN to activate or change that function. Starting at the top of the menu, the options are:

Copy Disk:
This option is selected after all other copy parameters have been set up. It requires an original software disk in the source drive and a blank disk (unformatted is fine) in the destination drive.

Starting Track:
You may change the beginning track to copy at will. The default track is 1, but any track up to 80 may be selected. Note that you may touch the RETURN key to increment and SHIFT/RETURN to decrement one track at a time, or hold down to repeat.

Ending Track:
You may change the ending track to copy at will. The default end track is 35, but any track up to 80 may be selected. We suggest track 38 for most protected software. Note that you may touch the RETURN key to increment and SHIFT/RETURN to decrement one track at a time, or hold down to repeat.

Let's take the time to explain why we would allow you to access up to eighty tracks of data when the Commodore has only 35 to 40 tracks available for use. We have reserved tracks 1 - 40 for 1541 mode formatted disks; side one only. For those of you with the 1571 drive, we have used tracks 41 to 80 to copy the reverse side of a TRUE 1571 disk format. To copy both sides of the 1571 format disk in one pass, input 1 as the starting track and 75 - 80 as the end track. Both sides will be copied without having to flip the disk over. This feature is NOT available to 1541 users as the 1541 has only one write head and the 1571 has two, both of which are formatting in the same direction, making the reverse side format unreadable by a 1541 drive.

Auto Density:
This feature defaults to off, but may be toggled on whenever you suspect whole track density changes. Only a few known programs use whole track density changes as their entire protection scheme, Superkit 1541 used density changes throughout the entire disk. Our auto density detects the bit-rate and automatically adjusts the copier for each track. Another protection scheme that uses density changes is one version of V-Max! protection. This protection demands that you copy tracks 1 through 40 (to be safe) and use a specially prepared parameter to finish the job.

Source Drive:
(Original diskette) This feature defaults to 8 but may be toggled to 9.

Destination Drive:
(Backup diskette) This selection defaults to 9 but may be toggled to 8.

Soft-Wire:
Soft-wire device numbers of drives.

F1/F3:
Directory .

F2:
Exit to BASIC. The drive will initialize to the disk currently in the drive.

F8:
Boot A Disk.

RESTORE:

You may reset to the original nybbler screen by pressing RESTORE. To abort the copying process after the drives are both working, you must physically turn the drives off and on again.

Single Drive GCR Nybble Copier:

Supports 1541/71 Disk Formats

Load the Maverick main menu and select the GCR Nybble Copier. At the (S)ingle or (D)ual prompt, S. The program should load to the Single Nybbler menu. Most of the menu options may be accessed by using the cursor U/D key to position the highlight bar over the desired function and pressing RETURN to activate or change that function.

You'll find that the Single Drive GCR Nybble Copier is essentially the same as the Dual version except that only one drive is required to backup your protected software. Instead of allowing two drives to transfer data back and forth between them, the one drive version requires you to swap the source and destination disks about four times each to produce a whole disk copy.

The Maverick's Single Drive copier has our extremely powerful RapidLok copiers built right in. This allows you to copy some of the most protected disks on the market. If the two drive Nybble Copier fails, try the single drive version with NO MODIFICATIONS to the settings. If the copy process starts, and then prompts you to re- insert the Maverick master side 2, you can be assured that you're dealing with RapidLok protection. In most cases, the Maverick Single Nybbler is smart enough to examine and duplicate a RapidLok protected program. We have identified a new version of RapidLok that will require a custom copier or parameter. When that version of RapidLok is detected, you will be prompted to check the parameter listings. We expect to see the first of this series on Maverick Parameter Module #6. Please note that duplicating a RapidLok protected piece of software is very dependent on CORRECT drive alignment and PROPER speed settings. If you are unable to duplicate a particular piece of RapidLok protected software, we suggest using a friend's equipment to make your backup. We find that the 1571 drive is more likely to be successful than the 1541 because of the speed accuracy built into that drive.

RAMBOard Nybbler:

Supports The 1541/41-II/71 Disk Drives.
Auto-senses and utilizes the 1764/1750 REU or the 64K Video RAM.
Requires 8K RAM Installed In Your Disk Drive.

As discussed previously in this manual, copy protection evolution has progressed to the stage where most software bound nybblers are useless. Custom written parameters are now and probably will always be the most effective tools we have in our copier arsenal.

When all other copy attempts have failed, those of you who have installed the RAMBOard in your disk drive have one last possible option. The RAMBOard Nybbler was created to attempt to take full advantage of the 8K added RAM provided by the RAMBOard. We can use the extra RAM to read and write WHOLE tracks of data, including header and tail gap modifications. Although not 100% effective, it will copy many protection schemes that our GCR Nybbler can't touch. As you use this copier, keep in mind that it is intended not so much as a replacement for our parameters, but rather as a possible means of backing up your software while we are developing a parameter. Again, this copier is extremely powerful but it has its limitations.

From the prompt, select the (R)AMBOard Nybbler. When the RAMBOard Nybbler main menu appears, the menu options are:

Copy Disk:

Begin backup procedure. Requires that your original disk be swapped with the backup disk, follow on screen prompts.

Source Device No:

Set to the device number of the drive which will be used as the Read drive. Use the RETURN key to set to 8, 9, 10, or 11. F2 defines the location of the added RAM in that drive.

Target Device No:

Set to the device number of the drive which will be used as the Write drive. Use the RETURN key to set to 8,9,10, or 11. F4 defines the location of the added RAM in that drive. Please note that each disk drive used in this feature MUST have 8K RAM installed.

Starting Track:

Defaults to track 1, but may be set from tracks 1 through 40. Use the RETURN key to increment tracks and SHIFT/RETURN to decrement tracks.

Ending Track:

Defaults to track 35, but may be set from tracks 1 through 40. Use the RETURN key to increment tracks and SHIFT/RETURN to decrement tracks.

Read Accuracy:

This option allows the user to input a measure of compensation for drive inaccuracy. The default setting of 0 instructs the drive to read each track once and store that data for the eventual write pass. Incrementing the setting (up to 4) tells the drive to read each track multiple times, attempting to get matching read results. The higher the setting, the more attempts. Use the RETURN key to increment the setting and SHIFT/RETURN to decrement the setting.

Write Accuracy:

This feature functions essentially the same as the Read Accuracy feature. The higher the setting (up to 255) the more attempts to write the data exactly as read. Use the RETURN key to increment the setting and SHIFT/RETURN to decrement the setting.

Check Target Speed:

Before using this feature, see the Parameter Menu Option for complete instructions on Target speed modifications. Because of the ease of drive speed changes for those of you who have installed our speed control device, we suggest that you set your drive speed to the lowered setting represented by the RED highlighted area before attempting any copy made with the RAMBOard Nybbler. All other users should leave the drive at normal speed settings for the first attempted copy, then if a failure results, lower the drive speed and try again. We have found that some titles will duplicate at normal speed and some REQUIRE the lowered speed. Those that were duplicated at normal speed also were duplicated at lowered speed with no problems. As usual, return the drive speed to normal after each copy attempt.

Softwire Drive:

Soft-wire device numbers of disk drives.

RESTORE:

The RESTORE key will abort any operation currently being preformed. If disk drives are active when you use the RESTORE key, you may have to turn them off and back on again to initialize to normal.

F1/F3:

Directory.

F2/F4:

Set the memory location (in Hex) of your 8K RAM device. This option defaults to $8000 to accommodate the 1541/1541C/1541 II RAMBOard. Those of you that have Rapidos Pro installed and wish to access the 8K RAM should disable Rapidos Pro before booting Maverick. The proper RAM location for Rapidos Pro is $4000. The RAM location for the 1571 RAMBOard is $6000. For RAM location in other boards, contact the manufacturer for proper RAM location. We assume they will be more than happy to provide that customer service.

F5:

Use this key to toggle Auto Density Detection On/Off. We recommend that you leave it off unless you are dealing with a protection scheme that you suspect is using non standard densities - SuperKit and older V-Max! for example.

F8:

Boot A Disk.

SECTOR MAP EDITOR WITH FAST DATA SCANNER

Supports the 1541/71 Disk Formats

When our programmers find need of a specialized utility, and none exists, they have no choice but to write it. We needed a utility that would examine a disk for errors, display true sector usage, allow editing of any sector, and print the results. And as if this weren't enough, it had to be FAST. The result was the Sector Map Editor.

The Fast Data Scanner was created to help us find bytes on a diskette that we have found in memory after examination of a program. The uses are endless. We have even used it to aid in the recovery of a short New, breaking software protection, and searching for repeating patterns.

From the Maverick main menu, select the Sector Map Editor. When the Sector Map Editor main menu appears, use the cursor keys to position the highlight bar over the desired option and press RETURN. Starting at the top of the screen, the menu options are:

Map Disk Errors:

After setting all other options, begin full error scan of the diskette currently in the disk drive.

SEE SCAN MAP OPTIONS BELOW.

Search Disk:

After setting all other options, begin Data Search of the diskette currently in the disk drive.

Enter Search Data:

Use this option to enter data you wish to scan the disk for. At the prompt, you may enter the bytes you are trying to locate in any of three forms. HEX, Decimal, or ASCII will be acceptable. You are limited to two lines of input. An incorrect input will not be accepted. Enter HEX data as: $8D,$53,$22 (Notice the “$” and the “,” placements.) Enter Decimal Data as: 200,255,36 (Notice the “,” placements.) Enter ASCII data as: “welcome to” (Notice the quotes around the string.) Enter Combinations of all 3 such as: “welcome to”,$8D,$53,$22,200,255,36

When all data has been entered hit RETURN and the Data Scan will begin. NOTE: The data information you typed in will be retained for future reference within the Enter Search Data screen.

SEE SCAN MAP OPTIONS BELOW.

Edit Sector Map:

This option allows a re-examination of any previous scan map without having to re-scan.

Start Track:

Set the beginning track to scan or edit. You may input 1 to 40 on a 1541 format or 1 to 70 on a 1571 format. Press RETURN to increment and SHIFT/RETURN to decrement. End Track: Set the ending track to scan or edit. You may input 1 to 40 on a 1541 format or 1 to 70 on a 1571 format. Press RETURN to increment and SHIFT/RETURN to decrement.

Device No.:
This option allows you to select one drive out of a possible of four disk drives. Device numbers available are 8, 9.. 10 and 11. Please note that when using a 1571 disk drive, the 1571 type will only be recognized when a true 1571 formatted disk is in the drive and the Device No. option is cycled.

F1/F3:
Directory

F5:
Disk Commands

F8:
Boot A Disk.

SCAN MAP OPTIONS:

When the Map Disk Errors or Search Disk Options are selected, scanning will begin on those tracks selected in the main menu. If you wish to pause the scan process, hold down RUN/STOP. To resume scanning, just press the space bar. To stop the scan short and begin examination or editing, press RESTORE. The sector counter is along the left side of the screen and the track counter is along the bottom.

After scanning, the data on your screen represents a Track & Sector map of the diskette scanned. The following symbols may appear:

+:	Data present in the sector.
-:	Standard 1541 format - no data present.
Blank Space:	Standard 1571 /MSD format - no data present.
Number:	Represents a DOS error. If a 2 is displayed, then a 22 error is at that position. If a 9 is present, then a 29 error is at that location, and so on.
V:	Represents V-MAX! formatted track.
A:	Represents a RapidLok formatted track.
S:	Represents a Full Sync track.
T:	Represents a Track Error. An example of a track error would be a FAT track. A T on track 36 probably would indicate a FAT track on tracks 35 - 36.
***:**	While Searching for Data, if an asterisk appears in the map, it represents a match of the data scanned for in that sector.

After the scan is complete, track and sector high lighters, as well as a flashing cursor, will appear. Use the F1/F3 keys to jump from the first to last sector on a track occupied by the flashing cursor. Use the F5/F7 keys to jump from the first track displayed to the last track displayed. If more tracks are available, such as when scanning a 1571 format, you may press the F5/F7 keys again to scroll the screen. Use the cursor U/D and A/L keys to position the flashing cursor over any readable sector you would like to examine further. To read the sector for examination or modification, hit Space Bar. The sector will be read and a HEX/ASCII memory map will be displayed. If examining a sector with a Data Match, that match will be identified by highlighted data.

You may use the Cursor U/D and R/L keys to position the cursor to the first byte you want to modify. Make any desired changes in Hex. To view the same sector in disassemble mode, hit the M for Mode key and the disassembly will appear. You may make changes by hitting the Space Bar and typing in your changes in mnemonics. Be sure to use proper spacing. Hit AETURN after each change. A bad instruction will exit the edit mode. After all changes are complete, use the W key to rewrite the sector. Use the J key to Jump to the next file link, if any. Use the Left Arrow key (ESC) to exit to the previous screen. You may select a new sector or return to the main menu by hitting ESC again.

While in Map Mode, a printout may be obtained by pressing the Commodore and P keys simultaneously to print from any printer capable of emulating a Commodore 801/1526 printer.

MAVERICK GCR EDITOR

Supports The 1541171 Disk Drives

The GCR Editor is the most powerful tool you'll ever use to examine a disk. It will allow you to view raw data the way it was originally written to the disk. Our GCR Editor has every feature we could think of to examine and manipulate headers and data. A thorough knowledge of the makeup of Commodore format is necessary to have full use of this utility. For complete information on this subject, we suggest 'Inside Commodore DOS', written by Richard Immers. This manual contains a wealth of information on the makeup of the Commodore format and the Disk Operating System (DOS). With this manual and our GCR Editor, you can achieve a new level of understanding.

In the following instructions, we will give you all the command features available to you with the Maverick GCR Editor. Only use and study can make you proficient. Enjoy!

What is GCR?:

When you load and save files from the C-64 to disk, they are not written bit for bit straight to the diskette. The Commodore 1541171 disk drive cannot write more than three '0' bits in a row to a disk, so writing a hex byte like #$06 poses a problem! Commodore developers created the GCR coding scheme to read and write data to and from the drive. It converts each four bits of hex code into 5 bits of GCR code. For every four bytes of hex data, there are five GCR bytes. Lastly, this data is written at a standard rate, depending on its placement on the diskette. Standard Bit Rates are as follows: Tracks 1-17 = $60, Tracks 18-24 = $40, Tracks 25-30 = $20, Tracks 31-35 = $00.

Commodore DOS protection is, for the most part, simply the placement of NON-STANDARD data on the diskette. This can be created by using single bytes in non-standard locations, abnormal drive speeds, or rewriting the format (single sectors, tracks, or the entire disk). By using your GCR Editor, you can obtain exact format information. You even have the power to duplicate many protection schemes on non-working backups. Let's go through the commands available to you in this powerful utility.

From the Maverick main menu, select the GCR Format Editor option. Be sure the Maverick master disk is in the drive face up and press RETURN. A sub-menu will appear, and prompt you for <G>CR Editor (Software Based) or <R>AMBOard Track Editor. Select the <G>CR Editor. The drive should start up and, in a short time, the GCR Editor main menu should appear. Your menu options are:

First Screen (Header Selection):

Track Selection:
Track values are entered in decimal. Values from 1-40.5 are accepted.

Bit Rate Selection:
Press RETURN for default value, otherwise enter one of four bit rates ($00,$20,$40,$60).

After Scan of Track:
The number of headers equals the number of syncs on a track. Left column = GCR of first 8 bytes. The right column = converted GCR bytes. The message bar just above the list of headers gives you information about the current header the cursor is on. Left hand will say: Sector: XX if the current header is part of a standard formatted track. It will give you the sector number in decimal so you can use the GCR Editor like a sector editor. The right hand will either say DATA or HEADER, depending upon whether the cursor is on the data block header (starts with a $52) or the actual data block itself (starts with a $55).

Commands (First Screen):

Shifted H: Help screens.

T: Enter a new track.

R: Enter a new bit rate for the current track.

F1: Directory of disk in drive.

F3: Prompt to reboot main menu.

Cursor U/D: Scroll through headers.

Space Bar: Read current selected header and go to edit (2nd) screen.

P: Print list of headers to printer (Standard Commodore printers).

+ or -: Go back or forwards one track and read.

C: Create a Track: You may access this feature after reading a track.

Options Include:

1. Fill track with no-sync:	Wipes out entire track with $55s.
2. Fill track with full-sync:	Fills entire track with $FFs.
3. Create Notepad header:	Wipes out an entire track with $55s, and then creates a one header/one sync track using Notepad code.

Second Screen (Header Edit Screen):

Header Info:
Appears at the top of the screen. Sync is the actual length of the sync mark of this header. Length is the length in bytes of the header. Note: if the header has more than $0500 bytes, the buffer for editing will only go up to byte $04FF, since the disk drive cannot read long blocks unless you have expanded memory.

Header and Data Tables:
Rows of ten GCR bytes appear on the left. The converted eight hex bytes appear on the right. Remember, five GCR bytes equal 4 Hex bytes.

Commands (Second Screen):

R: Reread the header data.

W: Write altered data back to disk. Z: Find zero GCR bytes and mark them.

P: Print out data to printer.
SPACE BAR: Enter edit mode.(See more info below.)

+ or -: Increment or decrement sync length by one.

CURSOR U/D/R/L: Move cursor around data table.

<: Delete one byte from cursor spot.

>: Insert one byte ($00) at cursor spot.

DEL: Delete bytes (from end of table)

S: Switch column editing from left to right.

A: Toggle Hex display Hex and ASCII (right hand of screen).

D: Enter disassemble mode. (See more info below.)

C: Repairs checksum of header or data block. Use before W command to prevent checksum error.

SHIFTED R: Lets you re-read current header at a different clock rate than the entire track was read at.

SHIFTED H: Help screens.

LEFT ARROW: Return to first screen.

Edit Mode:
Hit SPACE BAR to enter, border will change color. Type in hex bytes, or ASCII, whichever is appropriate. DEL key will backup cursor. Hit RETURN to exit edit mode. Note: On the display screen, double dots '..' mark bytes that aren't used. If you try to hit SPACE BAR to enter the edit mode on one of these bytes, it won't work (except, on the first '..' to the right of the last data byte displayed). Hitting SPACE BAR here allows you to append to the current data, the length of the header will change appropriately.

Disassembly Mode:
With the cursor in the right column, hit D to enter Disassembly mode. The disassembled code will appear in the GCR column on the left. Type in assembly text and hit RETURN to enter. Hit CURSOR UfD to escape Assembly mode.

SPACE BAR: Enter disassembly mode.

CURSOR U/D: Scroll back and forth through the disassembly.

RETURN: Exit disassembly mode.

P: Send disassembled code to printer.

Notepad Feature:
At times when using the GCR Editor, you may want to save a header, look at another one, and later retrieve the original header without re-reading it. Our GCR Editor features a scratch pad (called the Notepad) that lets you save one header in memory. You can also edit the notepad header.

T: Toggles editing mode from current header to notepad. The border will change colors and the message 'NOTEPAD' will appear in the top left corner. You can't use any disk commands like R,W,& Z in Notepad mode. Hit T to return to normal header program.

SHIFTED S: Save header to disk as a Notepad file. Save either Notepad or selected header.

SHIFTED L: Load saved header from disk.

UP ARROW: Saves current header to Notepad.

CONTROL I: Only works in the non-Notepad mode in GCR editing. Inserts NOTE PAD header code at cursor position. Use to retrieve Notepad.

CONTROL A: Appends notepad header to disk at cursor spot. If you have a long data block with extra room at the end, and you wish to add an extra sync to disk, move the cursor to the end of block, have the desired new header saved to the Notepad, and hit CONTROL A. The GCR Editor will automatically re-scan the track.

GCR Editor Hints. Tricks & Tips:

Use caution when using the W command repeatedly. The GCR Editor writes each header back to the disk as perfectly as possible (i.e.: correct length, correct sync). If you make a header longer than it was before and write it back to the disk it may destroy the header that follows it. '

The same goes for the CONTROL A Append command. Changing sync lengths and writing the header back to the disk is also dangerous. Use caution.

After you use the W command, you should verify that it wrote correctly by using the R command to re-read it.

Use the C Checksum command after editing a data block before you write it back to disk. This repairs the data block checksum. Otherwise, normal Commodore DOS will get a 23 read error when it tries to read the block.

Well, there you have it. The most powerful, easiest to use software based GCR Editor on the market today. If you feel confused or overwhelmed, don't be put off. A little study and practice will have you feeling right at home.

RAMBOard TRACK EDITOR

Supports The 1541/41-2111 Disk Drives
Requires 8K RAM Installed In Your Disk Drive.

Today's new generation of copy protection demands sophisticated tools. Raw data must be examined a whole track at a time. Today's custom formats are written a whole track at a time and often at non-standard speeds, and bit rates. Our custom copiers are developed by examining each track of data to determine what is necessary to reproduce that track. This lead to the creation of the RAMBOard Track Editor.

Although not for the novice, the RAMBOard Track Editor will allow the advanced user to see what actually makes up a V-MAX!, RapidLok, or other custom format. In many cases, you can even duplicate an entire disk, one track at a time. Please remember, you're going to be exploring uncharted territory. Patience and persistence will be the key-words of the day. Possible sources of information are Inside Commodore DOS (if you can find one), and CSM Program Protection Manual Vol II, available from us.

From the Maverick main menu, select the GCR Format Editor option. Be sure the Maverick master disk is in the drive face up and press RETURN. A sub-menu will appear, and prompt you for <G>CR Editor (Software Based) or <R>AMBOard Track Editor. Select the <R>AMBOard Track Editor. The drive should start up and, in a short time, the RAMBOard Track Editor main menu should appear. Use the cursor U/D key to position the cursor bar over the desired option and press RETURN to activate that feature. Starting at the top of the screen, the menu options are:

Edit Tracks: Select this option to begin track edit functions. See EDIT SCREEN FEATURES below

Source Dev No:
Set to the device number of the drive which will be used as the Read drive. Use the RETURN key to set to 8,9,10, or 11. F2 defines the location of the added RAM in that drive.

Target Dev No:
Set to the device number of the drive which will be used as the Write drive. Use the RETURN key to set to 8,9,10, or 11. F4 defines the location of the added RAM in that drive. Please note that each disk drive used in this utility MUST have 8K RAM installed.

Softwire Drive:
Soft-wire device numbers of drives.

RESTORE:
The RESTORE key will abort any operation currently being performed. If disk drives are active when you use the RESTORE key, you may have to turn them off and back on again to initialize to normal.

F1/F3:
Directory

F2/F4:
Set the memory location (in Hex) of your 8K RAM device. This option defaults to $8000 to accommodate the 1541/1541 C/1541 II RAMBOard. Those of you that have Rapidos Pro installed and wish to access the 8K RAM should disable Rapidos Pro before booting Maverick. The proper RAM location for Rapidos Pro is $4000. The RAM location for the 1571 RAMBOard is $6000. For RAM location in other boards, contact the manufacturer for proper RAM location. We assume they will be more than happy to provide that customer service.

F5:
Disk Command

F8:
Boot A Disk.

EDIT SCREEN FEATURES:

When the Edit Tracks option is selected, you will be presented with a work screen. The upper portion of the screen is the current status and allows input of Read/Write configuration. The mid-screen area is the scrolling track display buffer, while the bottom portion of the screen contains messages and prompts. Please note that ALL input and display is in HEX. Beginning at the top left of the screen the following options are available:

?: Help screen. Lists all available command keys and their functions.

T: Hit T for Track and input any Track from $01 through $28.

B: Hit B for Bit Rate, defaults to the normal Bit Rate for the selected track. You may change to $60 (Tracks $01 - $11), $40 (Tracks $12 - $18), $20 (Tracks $19 - $1 E), $00 (Tracks $1 F - $28). Note: Normal tracks for each rate in parenthesis.

A: Use the A key to select Auto density detection On/Off. Defaults to Normal/Off and Auto/On. If toggled Norm then the track will be read at the SELECTED Bit Rate. If toggled Auto, the track will be read at its written Bit Rate, if possible.

S: Set the Source device number of the drive which will be used as the Read drive. Repeat S to set to $08, $09, $OA, or $OB. Use SHIFT/S to define the location of the added RAM in that drive ($4000 - $EOOO).

D: Set the Destination device number of the drive which will be used as the Write drive. Repeat D to set to $08, $09, $OA, or $OB. Use SHIFT/D to define the location of the added RAM in that drive ($4000 - $EOOO).

P: Set Target drive speed. When entering this option, you will be asked to place a disk into the target drive. **Caution:** this feature will destroy any current data on track $26, and on $26 only. Hit SPACE to begin speed check. The normal speed for the current track at the selected Bit Rate is displayed in the message area at the bottom of the screen. The current speed is displayed in the upper portion of the screen. Please note that the speed is displayed as the number of bytes that can be written to the current track at the selected Bit Rate. This is particularly useful in duplicating custom formats.

The Following commands (G-Y-H) work in conjunction with each other and affect the way the track is read.

G: Set Gap search bytes. Input a 1 - 5 byte pattern that will assist in finding the beginning of the track. If the repeating pattern is not found, the drive will search infinitely. Hit RESTORE and turn the drive OFF and ON again. If you're not sure of a pattern to search for, leave at its default ($00) which will read most formats properly. Some formats such as V-MAX! may require this input.

SHIFT G: Copy track buffer data under cursor into Gap.

Y: Sync Search On/Off. After the Gap bytes are found, then this selects whether or not to look for a sync. Use the Y key to toggle ON/OFF.

SHIFT Y: Inserts syncs at cursor while in Edit Mode. Prompts for the number of syncs to insert ($01-$FF).

H: Set Header search bytes. Input a 1 - 8 byte pattern. This pattern determines the start spot for the track dump into the buffer. If not found, the drive will search infinitely. Hit RESTORE and turn the drive OFF and ON again. Use the Cursor R/L to jump forward or back. After changes are keyed in, use the Back Arrow (ESC) key to exit. (Please note: You must either clear or enter a new header pattern before changing the track to be read in.

SHIFT H: Copy track buffer data under cursor into Header (HDR).

F: This sets the Filler byte which is used to erase the track before the new track is written. For example if an $FF is selected, the track will be completely written with $FF bytes and then be over-written with the contents of the current track buffer.

R: Read selected track into buffer.

+/-: Read previous or next track.

W: Write current buffer to selected track at current Bit Rate.

HOME: Moves cursor to the top of the display buffer.

F1/F3: Page buffer up/down one full screen.

F2/F4: Fast page buffer up/down $400 bytes (approximately 6 screens).

F5: Returns to the general vicinity of the position defined by using F6.

F6: Remembers current cursor position in the display buffer.

F7: Find end of track. While reading the track, we place a $00 byte in the position that we believe to be the end of track data. This $00 byte is also used in the write mode to signal end of track write. Visual inspection of the display buffer will determine validity. F7 will move the cursor to the first $00 byte found. Please note that this $00 byte will not be written to the track.

F8: Find Sync in track buffer. Looks for ten sequential 1 bits and stops.

E: Edit mode. Input byte changes into the buffer. All cursor keys, Home key, Function keys and Insert/Delete keys are usable. Please note that the Insert key will insert a $00 byte at the current cursor position, and that if not overwritten, these $00 bytes may become the new end of track marker.

CLEAR: Fills the buffer with the fill byte displayed at the top of the screen. This command is valid only while in EDIT MODE.

M: Macro record. Records up to 2560 key strokes until RESTORE key is pressed. This feature will allow you to program the Track Editor thereby creating your own custom copier.

X: EXecute last MACRO recorded. You will be prompted for starting and ending tracks. The MACRO will repeat on each track until the ending track number is exceeded or the RESTORE key is pressed. A starting track of Zero will execute the MACRO once.

GEOS TOOLKIT

One of the hottest utility packages to hit the Commodore market in recent times is GEOS. We at Kracker Jax are sensitive to our users need to make backups of their software - especially their productivity software. The GEOS lineup is no exception. In this ToolKit, you'll find the utilities necessary to make backups that install on most any Commodore compatible drive. Also included in this module is our GEOS based Sector Editor that is programmed to run under GEOS Desktop v1.3 or higher, and our GEOS file copier that should make life a lot easier for all dedicated GEOS fans.

GEOS PARAMETER MENU

To be on the safe side, use our Single Drive Fast Data Copier (one or two drives) to produce non-working backups of your INSTALLED Berkeley software. (To de-protect some applications you must have INSTALLED AND VALIDATED NON ALTERED ORIGINALS, i.e. FILES MOVED, ETC.) If errors are encountered during the copy process, you may have a defective GEOS original. In this case, verify the errors using the Sector Map Editor. If the errors are in fact on your original, we suggest you contact Berkeley for defective replacement.

From the Maverick main menu, select the GEOS Tool Kit. Follow on screen prompts and when the menu appears, select the Parameter Menu, and the following options will become available:

BOOT SINGLE DATA COPIER:
Use this option to boot the Single Drive Fast Data Copier without having to route through the main menu.

BOOT DUAL DATA COPIER:
Use this option to boot the Dual Drive Fast Data Copier without having to route through the main menu.

BOOT SINGLE NYBBLER:
Use this option to boot the Single Drive Nybbler without having to route through the main menu.

BOOT DUAL NYBBLER:
Use this option to boot the Dual Drive Nybbler without having to route through the main menu.

Use the FUNCTION keys to select these options:

F1:
PARMS IN DRIVE NO.: Place the Maverick Parameter Module #8 in the drive bearing the device number defined by this option. Defaults to 8 but may be set to 8, 9, 10, or 11. Your drive must be hard-wired or previously soft-wired to accept a value other than 8.

F3:
BACKUP IN DRIVE NO.: Place the backup disk (never an original) in the drive bearing the device number defined by this option. Defaults to 8 but may be set to 8, 9, 10, or 11. Your drive must be hard-wired or previously soft-wired to accept a value other than 8.

F7:

LOAD MAVERICK PARAMETERS: Insert Parameter Module Number 8 in the drive (device number is defined by the F1 option) and press RETURN. The drive will start again and load a listing of the available parameters. You may use the cursor U/D key to slow scroll, and the cursor R/L key to page through the parameter listings. Place the cursor bar over the desired parameter representing the application, or file within the application you're trying to back up, and press RETURN. The parameter will load and prompt you for your backup. With the backup in the correct drive, press RETURN again. The parameter will attempt to sense which version of protection has been used on your particular software (there are many versions of some pieces), and will automatically defeat that protection if known, and will indicate probable success or failure. When the parameter has run its course (some take longer than others), the main menu will reappear. You may try your backup now, or run another parameter -- it's your choice.

If you get a 'parameter successful' message or 'version unknown' prompt and have tried several times on a particular piece of software, and the parameter still doesn't de-protect, contact us, and we will attempt to build a custom parameter for you. Please be aware that Berkeley released a version of GEOS 64 that is labeled as a v1.2 that is, in reality, a SYSTEMS DISK. Any SYSTEMS DISK that has a v1.2 label is, for our purposes, a GEOS64 v1 .3.

IMPORTANT: GEOS 64, be it v1.3 or v2.0 contains dual protection. In order to produce a fully functional backup of GEOS 64 (not GEOS 128), you must use the appropriate GEOS 64 parameter, as well as the Desktop parameter on your backup. Also, because the Desktop file is a protected file, be sure you run the Desktop parameter over any and all work disks containing the Desktop file. This will eliminate the so called 'Trojan Horse'.

Other Command Keys:

COMMODORE P:

By popular demand, Maverick includes a printout feature in the GEOS Parameter menu. After reading any Maverick parameter disk, you may dump the parameter listing to any printer capable of emulating the Commodore 801 or 1525 printer. Simply read the appropriate module, and press the Commodore and P keys together. You will then be asked for the correct printer device number (number four is most commonly used), and if you desire linefeeds. We suggest you answer NO to this unless you know your printer demands them. If the printout does not feed up properly, you should answer YES on the next attempt. After the initial setup questions have been answered, the printout will begin. You may press A to abort or P to pause.

RUNSTOP/RESTORE:

Use these keys to return to the main parameter menu while in the parameter listing mode.

F8:

Boot A Disk.

GEOS SECTOR EDITOR

No archival utility package worth its salt would be without a Sector Editor. We thought it would be fun 10 program one in GEOS format. We at Kracker Jax are lucky enough to have one of the top GEOS programmers in the country on staff. Bob Mills, of GEOS-Busters fame, has done it again! A full featured Sector Editor that works under GEOS Desktop!

To use our Sector Editor, you will need a basic knowledge of GEOS. If you have ever used any of the GEOS applications, you will find our Sector Editor quite easy to boot and use.

Place your GEOS v1.3 (or higher) diskette in the drive and boot it. When the desktop appears, insert the Maverick master disk Side 2 (or our GEOS Sector Editor may be copied to your work disk) in the desired drive, and open the Maverick disk. When the Sector Editor icon appears, double click it. The Sector Editor should boot up and appear on your monitor. Please note that your preferences, previously set up in your desktop, will be carried through to the Sector Editor. We suggest that you at least have the correct printer file (this must be on the work disk along with the Sector Editor), and input device (we highly recommend a mouse), set up as the defaults.

We cannot, in the scope of this manual, instruct you in the layout of the Commodore format. If you need information concerning this subject, see your local Commodore User's Group. They usually have an expert on hand to get you through the rough spots.

Sector Editor Screen:

Diskette/Left Arrow:
Write the sector currently displayed on the screen to the location indicated by the NOW Sector settings.

Diskette/Right Arrow:
Read the sector currently indicated by the NOW Sector settings.

T:
Select from 0 through F to set the desired Track, and click T to set that track to the NOW Track. So, to set track 18 (Hex 12) click 1 then 2 then T. That track will be displayed in the Track Now indicator.

S:
Select from 0 through F to set the desired Sector and click S to set that sector to the NOW Sector. So, to set sector 10 (Hex OA) click A (no 0 necessary) then S. That sector will be displayed in the Sector Now indicator.

Chain Loop:
You may chain forward through any file by clicking this option. Also any two byte address you wish to click on from the screen buffer may be jumped to. Just click on the first of the two bytes, and when the first byte becomes highlighted, click on the chain loop icon. The sector indicated will be read into the screen buffer.

Chain +:
All standard program files have what we call chain links. These are the pointers that indicate the next sector in that file. To automatically chain forward through the file, click the Chain + icon on.

Chain -:
After a chain forward through the file links, you may backtrack through the links previously read.

Large +:
Read next Track forward in numerical sequence.

Large -:
Read next track backwards in numerical sequence.

Small +:
Read next sector forward in numerical sequence. When the I~t sector has been read, this feature will wrap back to sector 0 in the same track.

Small -:
Read next sector backwards in numerical sequence. Sector 0 denotes the end stop on this feature.

Right Arrow/P:
Print sector information and data in Hex and ASCII. The correct printer driver must be installed on a GEOS work disk along with this Sector Editor. (Consult your GEOS User's manual).

Now:
Current track and sector displayed on screen.

Previous:
Previous track and sector read in, using chain +. OO indicates no previous sector was read.

Next:
Next track and sector to be read in (file chain links). Arrow/Dual Drives: Toggle A drive to B drive and vice versa. (Icon not displayed if two drives aren't present.)

Position:
Displays the position in Decimal and Hex of the current byte clicked on, if any.

Changing bytes in the sector map is simple. Just click on the first byte to change and input your changes in HEX. If you click on in the ASCII display, you may input your bytes as ASCII characters. Notice that the HEX bytes are automatically updated.

Have fun with this Sector Editor, but never experiment with your ORIGINAL software diskettes. Make a backup with any of our whole disk copiers and then no irreversible damage can be done.

GEOS FILE COPIER

From the first time we used GEOS, we knew that a file copier needed to be created. The normal copy procedure allowed in GEOS is slow and tedious. Only one file at a time can be transferred, and then you are limited to which files you can transfer from one disk to another. With the advent of GEOS 64/128 V2, file copying has been improved but still not optimum. The process is cumbersome and slow. Also your file selections are still limited.

Our new GEOS File Copier has the advantage of a larger storage buffer as well as not limiting your selection of files, other than system boot files. Please be aware that even if you use one our parameters to de-protect a GEOS boot disk, you still cannot file copy the disk to another disk and still have a working copy. The reason for this is, the kernel file must reside on the backup disk in the exact position as it did on the original disk. They use track and sector loading procedures rather than file oriented loading.

Place your GEOS v1.3 (or higher) diskette in the drive and boot it. For those of you with GEOS 128, boot up in 40 column mode. When the desktop appears, insert the Maverick master disk Side 2 in the desired drive, and open the Maverick disk, or our GEOS File Copier may be copied to your work disk and opened from there. When the File Copier icon . appears, double click it. The File Copier should boot up and appear on your monitor. Please note that your preferences, previously set up in your desktop, will be carried through to the File Copier.

When the GEOS File Copier main screen appears, at the top of the screen, the following information is displayed.

Current Disk:
The directory name of the disk in the source drive.

Total Files:
Displays the number of files selected to be copied.

Total Blocks:
Displays the total number of blocks of the selected files.

Source:
Displays A or B, and drive type.

Target:
Displays A or B, and drive type.

Please take time to familiarize yourself with the available options.

GEOS:

Click on and a window will appear.

Exit to Desktop: You'll be prompted to insert your GEOS v1.3 or higher disk in the drive if necessary.

Use Desk Accessory: If desk accessory files are on the disk in the source drive, they will be listed in this window. You may boot them by pointing at them and single clicking.

File:

Click on and a window will appear.

Load Source Directory: Click this option to load the directory of the disk in the source drive.

Copy Files: After all other options have been setup, click this option to begin copy process. See Copy Files section below.

Disk:

Click on and a dialogue box will appear. You will be allowed to swap the source and target drives. You must have pre-configured GEOS from the desktop before entering the GEOS File Copier. Please note that our GEOS File Copier will utilize any combination of drives that your version of GEOS will allow. At the time we released this utility, GEOS was not supporting partitions on the 1581 disk drive.

Page:

If the menu screen has been completely filled with file entries, you may click this option to view the next page of entries, if any exist.

File Selection:

Select files by pointing and clicking. You may also select a block of files by holding the button down while moving the pointer. You are limited to a maximum of 128 files per disk, but there is no limit to the number of blocks selected.

Copy Files:

After all other options have been set up, you may begin the copying process by clicking the Files option and then clicking the Copy Files option. You'll be prompted with Are You Sure? Answer OK or CANCEL. If you answer CANCEL, you will be returned to the main file copier screen. If you opt for OK, you will be prompted to by a dialogue box to insert Source and Target disks (if two drives are used). Again, answer the OK or CANCEL prompts. If you opt for cancel, you will be returned to desktop. If you continue, the copy process will begin. Follow on screen prompts until you get a copy complete message. At this point a dialogue box will appear and prompt you to either re-boot the GEOS File Copier or cancel to desktop. It's your choice.

GEO*BOOT

Supports 1541/71/81 Disk Formats
Requires a 1541/71 And One Additional Disk Drive.

Dedicated GEOS users have demanded and received many upgrade features since the original GEOS was released. GEOS v2.0 represents Berkeley's finest effort. One of the latest additions is limited support of the 1581 Disk Drive. It allows the user to utilize the 1581 as a data drive only. This support is OK, but our users have indicated that they wanted full support. They wanted to boot their GEOS directly from the 1581 and take full advantage of the speed that drive can deliver. Our GEO * BOOT utility delivers what ALL serious GEOS owners have wanted. GEO * Boot allows the user to file copy and run GEOS from a 1581, 1541, or 1571 (true 71 format).

From the Maverick main menu, select GEOS TOOL KIT and press RETURN. Follow on screen prompts, and when the new menu appears, select the proper version GEO * BOOT 64 or GEO * BOOT 128 and again press RETURN. When selected, the 128 version will prompt you to be sure your 40 column key is in the UP position, and then do a system reset. This means press the reset button, not power off. When the utility appears, select from the following options:

Install GEOS 2.0:
Before using this option, you must install, configure and thoroughly test your GEOS v2 disks. When satisfied that all is well, set up your source (1541/71) and target (1541/71/81) drives. See below. Begin the conversion process by selecting this option. Press RETURN and you'll be prompted to insert your ORIGINAL **(with protection intact)** GEOS v2 Disk 1, Side A, in the Source drive and any blank disk in the Target drive. We recommend that you place a write protect tab on your GEOS v2 disk. Warning: Any data presently on the target disk will be erased. Check that it is not an important work disk. At this point press the Spacebar to continue.

First, the target disk will be formatted according to the target drive used (1571 users will prompted for a 1541 or 1571 format), and then the conversion process will begin. If the computer resets back to BASIC during the process, you are either not using an ORIGINAL GEOS v2, or you are using a modified original. Please use your Original, as a copy will not work. In approximately 3 minutes, the Installation Complete prompt will appear. You will find three files on your target disk (one on the 128 version). These are the converted files with fast-loaders installed, that will now boot on the target drive. The first file on the 64 version is your boot file and may be booted by the following command: LOAD "*",(device #),1. C-128 owners may boot their version by using the RESET/AUTOBOOT, or BOOT "'GEOS128 2.0",U(Device#).

In order for your converted GEOS to run properly, you must use GEOS or our GEOS file copier to transfer the following files to your target disk: Desktop, Configure, desired input driver, and desired printer driver. All other data and/or application files may be transferred if desired. (Do not copy the three Systems files.) Also, all previously installed applications should run fine if transferred to the target disk.

Source Device No:
Defaults to 8, but may be set at 9, 10, or 11. This utility demands that your drive be device hardwired.

Target Device No:
Defaults to 9, but may be set at 8, 10, or 11.

F1/F3:
Directory

F8:
Boot A Disk.

QUICK FILE COPIER

Supports 1541171/81 disk Formats
Auto-senses and utilizes the 1764/1750 REU or the 64K Video RAM.

When presented with the task of transferring the program files from disk A to disk B, the Commodore user generally selects a file copier to do the job. Our Quick File Copier is designed to transfer program and sequential files back and forth from a 1541, 1571, or 1581 drive. We support the true 1571 format as well as partitions on the 1581. We have used fast disk access routines throughout this utility for optimum speed. We're confident that you'll find our file copier to be as fast or faster than any other file copier on the market. Enjoy!

As you use this utility, keep in mind a few important rules. For one thing, file copiers don't usually work well on most copy protected software. Even if you make a 'clean' copy of your protected software using our single drive fast copier, and use a parameter to defeat the protection scheme, there is still no guarantee that you may copy the files and still have a program that works properly.

Many pieces of commercial software use direct disk access to load blocks and sometimes even files of data (the Maverick parameters for example). These programs can only be copied by the whole disk copy method. The file copier is only able to transfer those files that have valid directory entries. Any data not connected to an entry in the disk directory will be left behind. Another point worth mentioning is that you MUST use a properly formatted disk as your destination disk. This disk may be freshly formatted. or may have other files already on it. For your convenience, we have a 30 second formatter available within this utility that does a full format and verify.

From the opening menu, select the Quick File Copier and press RETURN. In a short time, the Quick File Copier menu will appear.

Two Drive Quick File Copier:

Because the 1581 options are slightly different than the 1541fl1 options, we will identify them in these instructions as such. If no specific drive is mentioned, you may assume that all drive types react the same.

Starting at the top of the menu, the options are:

Copy Files:
This option is selected after all other menu options are properly set. See Copy Files section below.

Source Drive:
Use this option to change the source (original) drive device number from 8 to 9,10, or 11 . Your source drive must be either hard or soft-wired to match the change. Your drive type, if any, will also be identified in this option.

Subdirectory of Source (1581):
Defaults to OFF unless a 1581 disk drive is detected as the source drive. This option allows you to read into partitions, if any exist on your 3.5' diskette. With the disk containing the partitions in the source drive, and the Highlight Bar over the Subdirectory option, hit RETURN. Partitions will be displayed, if any, between the arrow pointers. Notice that the current directory name as well as the previous directory name is displayed at the top of the screen. If you wish to read into a partition, position the arrow pointers, using the Cursor U/D key, on either side of the partition name and press RETURN. Again. partitions, if any. will be listed on the screen. Repeating this process will allow you to read into any level of subdirectory or partition you wish. If you have gone past a desired partition, use the Clear key to return to the Root Directory and begin the read process again. To copy files from the current partition (listed at the top of the screen), hit the Back Arrow key to return to the menu. The source drive will remain in the current partition unless you access the source subdirectory option again.

Destination Drive:
Use this option to change the destination (copy) drive device number from 8 to 9, 10 or 11. Your destination drive must be either hard or soft-wired to match the change. Your drive type, if any, will be identified in this option. Subdirectory of Destination (1581): See above Subdirectory option. This option will only appear if a 1581 disk drive has been selected as the destination drive. Please note that you may save files from one partition to another partition on the same disk with proper setup.

Save Skew (1541/71):
The order in which your Commodore disk drive saves each sector of data to the diskette is called the interleave or Skew. The normal skew rate of the 1541 drive is 10. This means that DOS begins on, say, sector 0 of a 21 sector track (sectors 0 .20) and writes sector 0 then adds ten, writes sector 10, adds ten, writes sector twenty, adds ten again to make thirty and subtracts the maximum number of sectors allowed in that track from the total. In this case it would be 20 + 10 = 30 minus 21 = 9, add ten more, and so on. The skew is directly related to the speed at which the drive is able to send disk data to the computer. Normal 1541 DOS (Disk Operating System) prefers a skew of ten for the shortest possible loading time. However, there are fast loader hardware and software systems available that will shorten loading time considerably. Many fast loaders work at optimum speed when the skew rate is smaller than normal. For instance, the 1571 drive in 128 mode prefers a skew of 6, although any file save done in the 64 mode will normally save out at a skew of ten - not optimum. When copying files you want to use on your 1571 drive (in C-128 mode), why not set the skew rate to 6?

This will decrease load time considerably. Some other commercial fast loaders and their optimum skew rates are; Fastload Cartridge [10), Mach 5 [10), Super Snapshot with the 1541 [5 to 10), and with the 1571 [5), Warp Speed [6), Quick Load [9 to 10], Chip Level Design's Burst ROM [5], and Pro DOS an incredible [1 to 5]! You may want to experiment with your favorite fast load utility.

Format Destination:

This option will allow you to initialize or New a diskette. You may use a brand new disk or a previously used one. Remember, whatever is on that disk is going to be erased PERMANENTLY. The drive previously set up as the destination drive (default is 9) will be the formatting drive. With your disk to be NEWed in the destination drive, select the format option. You will then be asked to input the desired disk name (up to 16 characters) followed by a comma and any two character ID, letters or numbers. Press RETURN and you will be prompted to double check the disk. Do so; when satisfied all is well, hit the Y key for Yes. Formatting will take about 30 seconds and will automatically return you to the File copier menu when finished. If you get a 00,OK,00,00 message, then all went well and the destination disk has been prepared properly. Please note that if the destination drive is a 1571 drive, you will be asked whether you want a 1541 or 1571 format. If you select the 1571 format, both sides of the diskette will be formatted without having to flip the diskette over. Follow on screen prompts.

Softwire Drives:

See the Softwire Drives section in the Dual Drive Fast Data Copier section. Operation is identical.

F1/F3:

Directory

F5:

Hit this function key to send a disk command to either the source or destination drive. This feature defaults to the Source drive. Use the # key and RETURN to toggle to the destination drive. You will be presented with a S> or D>. This is your key to the built in DOS Wedge. You may send any valid disk command through this wedge. The S> and D> is the substitute for the OPEN 15,8,15, portion of a disk command. Thus to scratch a file, simply type in S>S0:Correct Filename. All other disk commands work in the same manner. See your disk drive manual for the list of available commands.

F7:

Exit to Basic. We have added this option for especially for those of you with 1581 drives. You may use the partition open commands to read as deep into the levels you wish, and then exit to BASIC. The last partition opened will still be accessible through normal DOS Commands.

RESTORE:

The RESTORE key will return the file copier to the file copier main menu from any file copier sub screen. If a disk drive is active, you may have to turn it off and on again to reset it. Please note that stopping a copy during disk access may ruin the data on the destination disk. Also, before shutting the drives down, open the drive doors to prevent possible damage to the source diskette.

Copy Files:

After all other copy parameters have been set and your destination disk is properly prepared, place a write protect tab on your original diskette and select the Copy Files option. The directory of the source disk will be read and will appear on the screen, using the cursor U/D key to scroll through the list of directory files. Your options are:

Space Bar:

Select the file indicated by the pointers. The pointers will automatically move down one file after selection.

A:

Toggle All: You may automatically set all files to be copied by pressing A. Note that all files are highlighted. The Space Bar will now act as an un-highlighter.

C:

Copy Files: Don't press C until you are done selecting all files for copying and both the source and destination disks are in their proper drives. The source drive will be read and the data will be transferred to the destination drive. If, as the destination BAM is being written out, the copier detects a duplicate file name being placed on the disk, you will be prompted for a new name for that file. Input up to sixteen characters. Please note that the marker lines on the left side of the File read-write screen represent about 10 sectors each. This is to be used as a rough indicator only. Don't disturb the disk drives until the main file copier menu reappears.

D:

Delete Files: After selecting files, you may delete or scratch them from the directory by pressing D. You will be asked if you are sure -- Yes or No. If you choose Yes, you will be asked if you would like to confirm each file before it is deleted. We suggest you respond Yes as a No response allows no turning back. Again, be careful with this option as the files can only be recovered by a skillful 'disk surgeon'.

F8:

Boot A Disk.

Single Drive Quick File Copier:

Our single drive file copier operates exactly the same as the dual drive version. To use the Quick File Copier with one drive, just leave the source and destination device numbers set at the default settings of 8, or set both of them to whatever device number you are using. You will be prompted to insert the source and then the destination disks numerous times. Just continue the disk swaps until the copy is completed and the main file copier menu reappears.

PARAMETER MENU

Copy protection has come a long way from the days when a do it all nybbler could either copy all protection on the market, or be programmed to do so. Today's copy protection demands, in most cases, what we call a parameter. 'What is a parameter?' you ask. Copy protection is generally made up of two special routines working together. The actual physical protection placed on the diskette by the duplicator, and the routine written by the programmer to check that physical protection. In order to copy a protected program, and still have a WORKING copy, we must either duplicate the physical protection or rewrite the protection check routine to allow the program to pass protection checks whether or not the physical protection is on the backup.

Duplicating the protection requires examination of the physical protection with tools such as our GCR Track Editor, and then creating a special program that re-programs the 1541 disk drive to write that protection out. Of course.. we could possibly build that protection write capability into our nybbler, but after a while the number of different checks and write routines would be prohibitive, and would cause our nybbler to slow down to a crawl.

Another answer is to de-program the protection check routine. This is actually the most effective method. We examine the original protection checks written by the software programmer, and disable them by creating a special program designed to re-write the original code by writing what we call a "patch' to a backup of the original. We MUST assume that the software program you own is EXACTLY like ours. If your program is different in any way, we will write our 'patch' to the wrong spot on your backup, and the parameter will fail. Luckily, this is not the norm. In most cases, the results are a backup that is referred to as "Broken'. That is, devoid of the need of copy protection. Once the copy protection on a backup has been defeated or 'Broken', any whole disk copier will archive that backup.

When a program has been written out in a non-standard format from beginning to end, more than a parameter is required. We must then write a special copier to duplicate THAT particular disk. This results in what we will refer to as a custom copier. A custom copier is created to reproduce a specific piece of software and will probably have no other purpose in life. Please be aware that we have examined protection schemes that WILL require a hardware addition to your 1541/41-II/71 . Because these drives are limited to 2K of user programmable RAM, many newer protection schemes cannot be duplicated using stock equipment.

If we add a bit of additional memory, all that changes. We can now read and write out whole tracks of data, defeating almost any protection scheme. Our RAMBOards were created to fill this need. This relatively inexpensive optional hardware is presently supported by the Maverick Parameter modules.

From the Maverick main menu, select the Parameter Menu and press RETURN. When the menu appears, use the cursor keys and RETURN to select the following options:

BOOT SINGLE DATA COPIER:
Use this option to boot the Single Drive Fast Data Copier without having to route through the main menu.

BOOT DUAL DATA COPIER:
Use this option to boot the Dual Drive Fast Data Copier without having to route through the main menu.

BOOT SINGLE NYBBLER :
Use this option to boot the Single Drive Nybbler without having to route through the main menu.

BOOT DUAL NYBBLER :
Use this option to boot the Dual Drive Nybbler without having to route through the main menu.

Use the FUNCTION keys to select these options:

F1: PARMS IN DRIVE NO.:
Place the desired Maverick parameter disk in the drive bearing the device number defined by this option. Defaults to 8 but may be set to 8,9,10, or 11. Your drive must be hard-wired or previously soft-wired to accept a value other than 8. Please note that when using Custom Copiers, this option should not be used. The copier will allow for two drive use when possible.

F3: BACKUP IN DRIVE NO.:
Place the backup disk (previously copied if necessary) in the drive bearing the device number defined by this option. Defaults to 8 but may be set to 8, 9, 10, or 11. Your drive must be hard-wired or previously soft-wired to accept a value other than 8. Please note that when using Custom Copiers, this option should not be used. The copier will allow for two drive use when possible.

F7: LOAD MAVERICK PARAMETERS:
You will be prompted to insert a Maverick Parameter disk in the drive (device number is defined by the F1 option) and press RETURN. The drive will start again and load a listing of the available parameters.

PARAMETER SELECTION MENU:

The Parameter module number is displayed in the upper left hand corner of your screen. Use the cursor UID key to slow scroll through the list of titles. To fast page through the titles, use the cursor R/L key. You'll find that the list is alphabetized to aid in quickly finding a specific title. To get to the first title in any alphabetical or numerical listing such as the first title starting with an “S”, just press “S” and that title will appear at the top of the screen. You may then scroll down to the desired title. If no title exists using an S as its first letter, the border will flash and the screen will not change. To activate a particular title, just place the cursor bar over it and press RETURN. Be sure the Parameter disk is in the drive with the correct side up.

Our parameters are set up in ten basic structures. The steps involved in each of the ten are slightly different. Each parameter has its own “Tag” displayed on the lower left quadrant of the parameter menu. Each “Tag” informs you of the parameter type, and how to back up that particular title. Please understand that unless otherwise instructed, a parameter should only be applied to Side one of your backup. If additional sides need to be backed up, use the same copier that was used on side one, and NO parameter.

Use Single or Dual Nybbler (then Parameter):

Backup your title with either our Single or Dual Nybbler, then return to the Parameter Menu and select that title from our listings. When prompted, insert your backup and press RETURN. When done, test your backup.

Use Single or Dual Data Copier (then Parameter):

Backup your title with either our Single or Dual Fast Data Copier, then return to the Parameter Menu and select that title from our listings. When prompted, insert your backup and press RETURN. When done, test your backup.

Duplicates Protection, Use Single or Dual Data Copier:

Backup your title with either our Single or Dual Fast Data Copier, then return to the Parameter Menu and select that title from our listings. When prompted, insert your backup and press RETURN. When done, test your backup.

Custom Copler-1541 drives only (no previous backup needed):

Select the title from the Parameter menu and you will be prompted to swap between the source and destination disks numerous times. When done, test your backup.

Use Single Data Copier Only (Then Parameter):

Use the Single Drive Fast Copier (one or two drives are OK) whenever a copy needs to be 'cleaned' of all physical protection. After your backup is complete, return to the Parameter Menu and select that title from our listings. When prompted, insert your backup and press RETURN. When done, test your backup. Custom Copier (1541/71 Drives, no previous backup needed): Select the title from the Parameter menu and you will be prompted to swap between the source and destination disks numerous times. When done, test your backup.

Use Single Nybbler Only:

The ability to copy certain protection schemes will be built into our Single Drive Nybbler. Simply copy your ORIGINAL program diskette with our Single Drive Nybbler, then test your backup.

Dupes Protection, Use Single or Dual Nybbler:

Back up your title with either our Single or Dual Drive Nybbler, then return to the Parameter Menu and select that title from our listings. When prompted, insert your backup and press RETURN. When done, test your backup.

Single Nybbler Density On:

Back up your original disk with our Single Drive Nybbler, setting the Density Detection option to ON. Copy all sides in this manner, setting the ending track option to 40. When the backup is completed, return to the parameter menu and select the appropriate title from our listings. Follow on screen prompts to produce a working backup.

8K RAM Needed:

Unfortunately, certain protection schemes have progressed to the point where they DEMAND the use of hardware as well as software to produce backups. Parameters tagged with this label will require that you have an additional 8K of RAM in your disk drive.

Our parameters should work properly with ANY 8K of RAM installed in your drive. This can be our RAMBOard, Rapidos Pro from Chip Level Designs, or even your own homemade board. For those of you who have not yet purchased the RAMBOard, let us assure you that it is quite easy to install. A few simple household tools and a half an hour of time spent should have you up and running. Those of you who wish to use two drives to operate these parameters MUST have BOTH drives fitted with 8K RAM.

Please note that certain parameters may require that you set the drive speed to non-standard settings. We unfortunately cannot get around this inconvenience, but have developed a speed control device that will make it much easier to adjust these settings (see below). If a speed change is necessary, make your backup, and then reset the speed back to normal settings. See the Drive Speed Setting section below.

After selecting a parameter tagged with 8K RAM Needed, a standard menu will appear. You may use the Cursor U/D key to highlight the desired option, and press RETURN to select that option. The menu options are:

Copy Disk Side:

Begin backup procedure on selected side, requires that your ORIGINAL disk be swapped with the backup disk. Follow on screen prompts. Please note that with verify ON, copy time for 8K RAM Needed titles can be a bit longer than you may expect. This is due to extensive Read/Write verify routines built into those parameters. Also, you'll be prompted if the copier is unsuccessful when attempting to write a track. We suggest you try another target diskette in this case. We know you'll be pleased with the results.

Source Dev No:

Set to the device number of the drive which will be used as the Read drive. Set to 8,9,10, or 11. F2 defines the location of the added RAM in that drive.

Target Dev No:

Set to the device number of the drive which will be used as the Write drive. Set to 8,9,10, or 11. F4 defines the location of the added RAM in that drive.

Speed Check:

Use this option before attempting to execute any 8K RAM Needed Parameter. Begin by placing the blank disk you intend to use as the target disk (write protect notch uncovered) into the target drive and press RETURN. You'll be presented with two vertical bars and an arrow pointer in the center of the screen. The green highlighted area in the left bar represents the ideal standard drive speed range. The red highlighted area in the right bar represents the required speed range for that particular parameter. The arrow pointer will indicate the current drive speed setting. You should always take into consideration disk drag and slippage because of the sensitive nature of these copiers. If the arrow pointer is not within the red highlight, then see Drive Speed Setting Option below.

Soft-wire Drive:

See the soft-wire drive option in the Fast Data Copier instructions in this manual.

F1/F3:

Directory

F2/F4:

Set the memory location (in Hex) of your 8K RAM device. This option defaults to $8000 to accommodate RAMBOard. Those of you that have Rapidos Pro installed and wish to access the 8K RAM should disable Rapidos Pro before booting Maverick. The proper RAM location for Rapidos Pro is $4000. For RAM location in other boards, contact the manufacturer for proper RAM location. We assume they will be more than happy to provide that customer service.

F5:

Select desired side of program to be copied. Multiple sided programs must be selected property.

F6:

You may toggle the Read/Write verify ON or OFF with this option. We suggest that you use the OFF mode unless you have failures, then try turning verify ON and retry.

F8:

Boot A Disk

Drive Speed Setting:

Whenever an 8K RAM parameter is called, we will advise you of the optimum drive speed range required to back up that title. This information can be obtained by using the Check Target Speed option located on the menu screen for each individual parameter. Your drive must be returned to ideal range after each copy attempt.

Making a copy of a disk requiring a speed change is not difficult, but can be a nuisance. We have developed a speed control device that sells for $24.95 plus $3.50 shipping and handling, and require NO SOLDERING on the 1541/41-II drives. The 1571 version will require minor soldering. This will make the speed setting a breeze and require minimum effort once it is installed. For more info, call us on the Tech line, or see the Software Support Catalog.

From the menu, select the Target Speed option to check the diskette you wish to use as your backup disk. This will help insure that the disk is usable for an 8K RAM parameter which can be sensitive to diskette drag and quality. We can check that the 'drag' of the backup disk is within the tolerances allowed by that parameter. If the pointer is excessively out of the RED HIGHLIGHT, either check another disk or if necessary, adjust your drive speed to the proper range. Use a small jeweler's screwdriver to adjust your speed while watching the arrow pointer (see below). Important: Be sure the target disk to be used is in the drive while the speed modifications are made.

Please note that there are two basic drive types as far as we are concerned. These are those drives with the spring latch holding in the disk, and the type with the toggle latch. Both are set in exactly the same way, but the speed potentiometer is found in different locations. Also note that we have located and identified a 1541 II model that has NO potentiometer. We have no solution to that particular drive problem.

Toggle Door Model:

Turn your disk drive over and use a small Phillips screwdriver to remove the four screws securing the drive cover. When done, lift the plastic cover from your drive and put aside. Next, if you still have the metal RF Shield in place, remove the two screws that secure it and lift it off also. Towards the front of the drive, locate the brown PC board. That board contains the potentiometer to control the drive speed. It is generally blue and yellow with a cross slot on top. You may use a small jeweler's screwdriver to turn the slot in very small increments while running our speed check program. Be patient, and set the speed correctly, as the speed is critical to the backup procedure. Remember, after the backup has been made, return the drive back to STANDARD setting.

Spring Door Model:

Turn your disk drive over and use a small Phillips screwdriver to remove the four screws securing the drive cover. When done, lift the plastic cover from your drive and put aside. Next, remove the six screws that hold the drive chassis to the bottom half of the plastic case. Carefully lift the entire drive assembly from the plastic case and prop it on its side taking care not to drop it. On the underside of the drive chassis towards the front, locate the small round hole. Inside this hole, you should find a small slot. This is the potentiometer used to control the drive speed. You may use a small jeweler's screwdriver to turn the slot in very small increments while running our speed check program. Be patient, and set the speed correctly, as the speed is critical to the backup procedure. Remember, after the backup has been made, return the drive back to STANDARD setting.

Other Parameter Selection Command Keys:

F1:
Directory

F2:
Exit to BASIC. This option will reset the computer back to the stock start up screen. Occasionally, you may need to turn the drive off and on again. or initialize the drive in order to load the disk currently in the drive.

F8:
Boot A Disk.

Parameter Printout:
By popular demand, the Maverick includes a printout feature in the Parameter menu. This printout contains a parameter listing as well as the copier tag belonging to each parameter. After reading any Maverick parameter module, you may dump the parameter listing to any printer capable of emulating the Commodore 801/1525 printer. Simply read the appropriate module, and press the Commodore and P keys together.

You will then be asked for the correct printer device number (number four is most commonly used), and if you desire linefeeds. We suggest you answer NO to this unless you know your printer demands them. If the printout does not feed up properly, you should answer YES on the next attempt.

After the initial setup questions have been answered, the printout will begin. You may press A to Abort or P to Pause. After pausing a printout, you may press C to Continue.

RESTORE:
Return to the main Parameter menu.

RUN-STOP/RESTORE:
Return to the Insert Parameter Disk Screen. Any new Maverick Parameter disk may be read this way.

We have built in 'parameter version detection'. Beginning with Parameter Module number 2, we can, in most cases, sense a program protection version different from the one we worked on. Built in prompts will inform you of incorrect versions. We will be updating this feature whenever possible. Also built into our Parameter executer is the ability to check numerous known versions of protection and auto select and execute the correct version. This will be used more and more, although you won't be aware of it. Remember, we do accept suggestions. If you have a need for an added feature that you feel other people would enjoy also, please let us know!

DIRECTORY EDITOR

Supports 1541/71/81 Disk Formats

Our Directory Editor is a tool that allows you to rearrange standard as well as GEOS directory files on most any non-protected diskette. It handles hand sorting, alphabetizing, separations, renaming functions, locking and unlocking files, and partitions on the 1581 drive. Please note that functions referred to that are 1581 specific will be **<bracketed and highlighted>**. Once you become familiar with the operation of this utility, we know it will become one of your favorite. From the Maverick main menu, select the Directory Editor. When the menu appears, your options are:

Read Directory:
This command will read the directory of the diskette in the current drive which is listed at the top of the menu screen. The **<root>** or main directory will be read into memory unless **<the drive has been left in partition mode>**, or a new directory has been read in. When the directory has been read, it is placed into the edit buffer until a new directory is read. This means you may edit the same directory without having to re-read it.

<RETURN: If you place the flashing arrows beside a partition name (indicated by the File Type 'SUB' in the upper part of the screen) and press RETURN, the contents of that partition will be read into the Input Buffer. In order to return to a previous partition, or to the root directory, you must press RESTORE to return to the Editor Main Menu and use the DISK COMMAND option to initialize the disk to the root directory / . Use the READ DIRECTORY option and the RETURN key as before to return to the desired partition.>

Edit Directory:
Once the directory has been read, use this option to rearrange to suit your needs. See Edit Directory option below.

New Drive:
Set this option to the device number of the drive containing the diskette you wish to work on. This option defaults to 8 but may be set to 9, 10, or 11.

F1:
Directory

F5:
Disk Command

F8:
Boot A Disk.

Edit Directory:

Once a directory has been read into the edit buffer, you may begin work on it by choosing this option. Place the cursor bar over the Edit Directory option and press RETURN. You will find the directory of your work disk in the INPUT buffer on the left hand side of the screen. The options available are:

Edit Changes:
At the top of the screen, you will see information about the disk and the file currently pointed to by the flashing arrows in the Input Buffer. Use the U/D Cursor to move the arrows to the filename you wish to edit. Now press the E key for Edit and type in your changes. The U/D or RETURN keys will allow you select the following items.

Current Disk:
You may rename the disk with a name up to 16 characters long. When you have finished, press the U/D Cursor key to move to the next selection.

ID:
A standard disk ID consists of five bytes. The first two are the ID bytes you declared when you formatted the disk. The fourth and fifth bytes are CBM DOS ID bytes. These bytes, plus the space between them, can be replaced with any alphanumeric character (five characters).

File Type:
This option allows you to change the type of file. Please be aware that you cannot really change a relative file to a program file just by renaming the file type. These changes are only cosmetic and may even prevent some files from loading correctly. Experiment on a work disk if you are unsure. Use the cursor R/L key to toggle the file types available.

File Name:
This option allows you to rename a file with a name up to 16 characters long. Please Note: DO NOT use the characters *, ? or " in Disk Names or File Names. Using these characters WILL cause problems accessing files that include them.

Status:
You may Lock or Unlock a file with this selection. When a file is Locked you cannot scratch the file through normal drive commands. However, if you format the disk, the file will be lost.

Left Arrow:
The Left Arrow key (not the cursor key) will allow you to abort the Edit Changes mode.

Buffer Edit Mode:

The window on the lower left side of the screen is your input buffer (directory reads in) and the window on the lower right of your screen is the output buffer (directory writes out). You may use the cursor U/D key to scroll up and down through the listings on the side pointed to by the arrow. To turn the arrow to the opposite buffer, use the cursor R/L key. With the arrow pointed to the side you wish to work on (both sides can be edited), the available options in this, the ACTIVE buffer, are:

HOME:
Use the Home key to quickly return to the first entry in the file listing.

SPACEBAR/SHIFT SPACEBAR:

Select the title pointed to by the arrow. Pressing the SPACEBAR causes one title to be highlighted (or un-highlighted) then moves DOWN one position. You may select one listing, a block of listings, or multiple blocks of listings to be moved to the opposite buffer. Use SHIFT SPACEBAR to move similarly in an upward direction.

A:

Toggle all listings in the active buffer to highlighted on or off.

S:

Sort all titles in the active buffer that are currently highlighted. You will be prompted with “are you sure”? Answer Yes or No. The sorted block will be placed in the same position it was previously in, except that it will be sorted according to numerical and alphabetical order.

M:

Move highlighted listings from one buffer to the other. You may use the arrow pointer to select the position to insert the highlighted block(s), simply position the arrow to the position just below where you want the block(s) inserted and press M to Move it. If the arrow is not positioned to the opposite buffer when the M command is used, the block(s) will move, by default, to the bottom of the stack of the inactive buffer.

D:

You may insert a Dividing line to separate any or all listings. Simply position the pointer just below the spot you wish to insert the dotted line and hit D. This divider will be cosmetic only, and will not take up any real diskette space other than in the directory.

SHIFT D:

This works exactly like the D command except that any printable character may be selected as the divider. Simply hit SHIFT D and the character of your choice.

W:

Use W to reWrite the finished directory back to the work diskette. You will be prompted with “Are you sure”? When satisfied all is well, prompt Yes and the new directory will be written out. Please note that any listings not moved to the output buffer will not be written and will be scratched. Auto validation will occur if files other than dividers are left behind. If not, you will be prompted as such, and be returned to the Edit mode.

F1/F3:

Fast Page up or down through the file buffer.

U/L:

Lock or Unlock an entire highlighted block of files.

CLR:

De-select all highlighted blocks of files.

RESTORE:

Use this key to return to the main menu. Your work will not be ruined, as you need only select the Edit Directory option again to resume where you left off.

/:

1581 owners may use the / command while in the buffer mode to read in the root directory. Please understand that this is an abort command and will NOT write out a new directory before reading the root.

If, before reading a new directory, you feel that your work needs to be altered on the previous disk, even after it has been written out, you may return to make additional changes by using the Edit Directory function. You will be returned to the work screen in the same condition you left it. Just make your new changes and reWrite the directory again.

6502 M/L MONITOR

Supports Any Commodore Compatible Disk Drive

From the main menu select the 6502 M/L Monitor option and press RETURN. When the monitor menu screen comes up, use the cursor U/D keys to choose an option. Press RETURN to execute that option. Our M/L Monitor is completely re-locatable in memory. Hitting the RETURN key while the “Monitor=$X000” is highlighted will increment the monitor to the desired Hex address.

F1:
Directory

F8:
Boot A Disk.

OPTION 1: Execute chosen monitor. (See Monitor Commands).

OPTION 2: Save chosen monitor to a work disk. Saves autoboot file under name: “MONX000”. Just LOAD “MONX000”,8,1 to autoboot other save files. The op-codes listings will be saved as 'OPS'. The monitor will be saved as “X0”.

OPTION 3: Edit the op-code file (OPS) on any WORK DISK. CURSOR U/D: Slow scroll through list. CURSOR R/L: Fast scroll through list. RESTORE: Reset to previous menu. SPACE: Allows you to change the mnemonic. A: Steps through the addressing modes (changes them). HOME: Returns cursor to beginning ($00 byte). S: Re-saves changed opcode file to a WORK DISK.

6502 M/L Commands:

R: Displays status of A, X, Y registers and Stack pointer
G: XXXX - Executes code starting at $XXXX
X: Returns user to Basic
M: FFFF LLLL - Displays in hex, memory between 2 two addresses. If a second address isn't specified, scrolls forever. RUN/STOP halts.
@: Sends disk command. Alone returns drive status. @$ for directory of disk. SPACE: during directory pauses. RUN/STOP: abort directory listing.
L: Load file from disk. L “FILENAME”,device#,address(optional). For example- L “FILE”,08,C000 (IF an address is given, it WILL load to that address.)
V: Verify file in memory. V “FILENAME”,device,address(optional). Same as Load command but Verify instead. A “?” stands for verify error.
S: Save File. S “FILENAME”,device,FFFF,LLLL+1 Example: S “FILENAME”,08,C000,D001
F: FFFF LLLL XX – Fills memory from $FFFF to $LLLL with $XX byte.
D: FFFF LLLL ($LLLL Optional). Disassembles memory. Use CURSOR U/D to scroll through listing. Editing is possible using mnemonic changes.
P: Send code to printer - PD FFFF LLLL sends disassembly listing. PM FFFF LLLL sends HEX Memory listing. Commodore 1525 compatibles only)
A: XXXX mnemonic commands - Assemble code beginning at $XXXX (Be sure to use proper spacing between characters.)
H: FFFF LLLL PATTERN - Hunts from $FFFF to $LLLL for up to an eight byte pattern. Use quotes on either side of an ASCII pattern. ASCII and Hex may be mixed.
T: FFFF LLLL XXXX - Transfers memory from $FFFF through $LLLL to $XXXX.
TC: Use same syntax as T command. Will transfer computer memory to drive.
TD: Use same syntax as T command. Will transfer drive memory to the computer.
TF: Same syntax as T command. Fast command version of TC. Warning: $XXXX can't be between $0001 and $0147.
O: This is the letter O not a zero. O followed by an 8,9,A,B (device number) will put you in the drive-mon mode for the specified drive. The above commands are the same for the drive-mon except the P feature is inactive. For printer listings of drive memory, send the code to the computer, then the printer. O and RETURN sends you back to the computer memory. A ']' lets you know you're in drive memory, while a '.' denotes computer memory.

To assemble/disassemble beneath ROMS and the VIC CHIP, change location $0002 as if it were $0001. $0001 can't be changed through the monitor.

$0002: $37 = All ROMS in.
$36 = Bank out BASIC. ($A000-$BFFF)
$35 = Bank out Kernal & BASIC.
$30 = Bank in RAM under $D000.
$31 = Bank in character ROM under $D000.

UPGRADES & GOODIES

Menu Selection And Options:

The Upgrades & Goodies module represents a small part of our latest Maverick additions. With the Upgrades and Goodies disk in the drive, C-128 and C-64 owners with Super Snapshot v4 or v5 may simply reset or power-on to autoboot the main menu. When the menu appears, use the cursor U/D key to highlight and the RETURN key to select the desired utility.

Other Command Keys:

F1:
Directory

F2:
Exit to BASIC (or Super Snapshot).

F5:
Disk Commands

F7:
Next Menu Page: Page through all menu selections using this function key.

F8:
Boot A Disk.

Custom Menu Construction Procedure:

We at Kracker Jax appreciate your enthusiasm and support given the Maverick. As a thank you, we have re-programmed the menu selection process. The Maverick v5 Master program disk as well as the Upgrades & Goodies disk both has all menu selections laid out on the directories of their respective disks in an organized manner. All selections may be relocated to any work disk which may be loaded by AN'(Commodore compatible disk drive. Those of you with a little knowledge of pointers and starting addresses may use the Configure Menu utility provided in the Upgrades & Goodies menu. All tools needed to determine pointers and addresses are contained in the Maverick itself. Enjoy!

Using the Quick File Copier, inspect the directories of the Maverick master disk and the Upgrades & Goodies disk. Decide which menu selections you wish to transfer to your new work disk. From here follow the steps below:

Use the Quick File copier to format your work disk as desired. A 5.25" as well as a 3.5" disk may be used, it's your choice. When done, read in the Upgrades & Goodies disk and copy the following files:

UPGRADES!: Must appear first on the new work disk.
CSET
OPS
UPG
RUNBASIC (This is a Re-locatable BASIC Start-up Program - Load Address = Boot Address)
£BASIC CONFIGURE (Optional Example)
BASIC EXAMPLE (Optional Example)
FL41 (1541 drives) or FL71 (1571 drives) or FL81 (1581 drives) or FLNO! (any other Commodore compatible drive) : Choose one only - This is the Fastloader file that must be on your work disk.
£CONFIGURE

Now file copy the desired modules with their respective files to your work disk. The files with a £ preceding the name are the actual boot files. All files belonging to each module will be contained between the dotted divider lines.

When all modules are copied, you may load your custom work disk as LOAD "*",8,1. Use the menu just as you would use the Upgrades & Goodies Menu. Also note that all £ files are actually autoboot files and may be booted directly from BASIC - LOAD "£filename",8,1.

Adding Non Maverick Selections To Your Work Disk:

For those of you with the knowledge of file pointers and load addresses, we have provided a configuration feature that will allow you to build a custom work disk using the Upgrades & Goodies menu. Begin by following the procedure in the Custom Menu Construction Procedure. After copying all pertinent files as detailed above, copy any additional files that make up the desired utilities you wish to add to the menu. Now load the new work disk as LOAD "*",8,1 and select the CONFIGURE option. IMPORTANT: When selecting CONFIGURE, do not tap the RETURN key - HOLD IT DOWN until the new menu appears. This utility allows you to configure loaders for your new menu selections. From the top of the screen, your options are:

E: Edit
When selected you may edit the following fields on screen.

1} Input desired boot name as it will appear on the menu (no £ sign needed).
2} If your program is MIL, type in the EXACT name of each file to be loaded in (up to 5). If your program needs a BASIC startup, type in all necessary files including the RUN BASIC file, copied earlier. IMPORTANT: the last file typed in MUST be the BASIC program you wish to run.
3} Type a forced load address of each file or leave at 0000 to default to its normal load address.
4} Input if a fastloader is to be installed. Use Space Bar to toggle Yes/No. Use No when not using a 1541/71/81 drive.
5} If your program is MIL, type in the program startup address in hex. If the program is written in BASIC use $CF00 as the startup address.

Comments:
Type in any comments or notes to yourself which can be viewed any time you bring up the configure file you are presently working on.

D: Delete
Delete configure file presently being worked on, if previously saved.

S: Save
Save configure file presently being worked on.

B: Boot
Boot from current configure file (be sure to save before using or your work will be lost).

X: EXit
Exit to Upgrades & Goodies menu under construction.

Once a menu option has been configured, you may re-edit the configure file (shown as £filename on the directory) by selecting that option from your custom Upgrades & Goodies menu and again HOLD DOWN THE RETURN KEY while loading.

Hints: Optimize Loading Time:

When creating your custom disks, you may want to optimize your loading time. This is best done by adjusting the skew rate while using our Quick File Copier.

No Super Snapshot in Use (Use 41 or 71 Fastload File) : 1541 Drives - Skew of 5 : 1571 Drives - Skew of 4. Super Snapshot in Use (No Fastioad File Needed) : 1541!71 Drives - Skew of 5.
Most other Fastloading Devices: 1541/71 Drives -Skew of 6 (experiment as necessary).

DIRECTORY RECOVERY

Supports 1541171/81 Disk Formats
Disable Super Snapshot If In Use.

Have you ever tried to load an important work disk and found that the disk wouldn't load because the drive started working and then went into a tizzy, first internally banging and then flashing the red LED at you? Have you ever done a short new on a disk and then found that you formatted the most important data disk in your library? If you've owned, and used your Commodore for very long, the answer has to be YES!

Our Directory Recovery program was designed to allow the average Commodore user to repair his own diskettes if the unthinkable happens. This program does automatically, the work that used to take an experienced user hours upon hours of painstaking work. The first time you HAVE to use it, you'll really appreciate having it at your disposal.

From the Upgrades & Goodies menu, use the Cursor U/D keys to select the Directory Recovery option and press RETURN. When the Directory Recovery menu comes up, the following options will be available:

Create New Directory:
IMPORTANT: Before using this option, please make a backup copy of the damaged diskette using the appropriate Fast Copier -1541 for 1541 disks, 1571 for 1571 disks, etc. Use this backup in the repair process, NOT your original. Place the un-write protected backup of your damaged diskette in your drive, device #8, and use this option to begin the directory recovery. Press RETURN and the process will begin. It will scan and recover EVERY partition, file and file segment that is possible to recover.

When the repair process is complete, a files list will be displayed and you will be prompted to:

<-:
Esc: Return to Main Directory Recovery Menu.

T: Toggle file types
If any recoverable program or sequential files are on the disk, they will be written to the directory as File 1, File 2, File 3, and so on. Other file types are beyond the scope of this utility. Partitions, if any will be recovered if possible and will be displayed with the name of the directory header of that partition. Be aware that long forgotten and scratched files may show up. It will be up to you to file copy and go through the files and weed out the unneeded ones and rename the good ones.

After you have run the Directory Recovery program, you will notice that all files recovered were set as program (PRG) files. If any were originally sequential (SEQ) files, you will have to set the file type by using this option. Place the repaired disk in the drive (un-write protected), highlight this option and press RETURN. After the directory listing loads, it will be displayed on the screen. The following options are available:

Cursor U/D:
Move highlight bar to desired File.

Spacebar/Shift Spacebar:
Toggles File between SEQ and PRG (designated by # of blocks) then moves up/down.

Control D:
Delete file from listing.

W:
Write new directory to the disk.

P:
Print directory to any 1525/801 compatible printer.

<-: Esc:
Return to Main Directory Recovery Menu.

Toggle File Types:
Any directory may be read in without using the Create New Directory option first. Use this option to manipulate file types or to do a directory printout. SEE Toggle File Types option above.

Device No.:
Set to the device number of the drive you wish to use for the recovery process. The program will auto-sense disk format.

F1:
Directory

F2:
Exit to BASIC. The drive will initialize to the disk currently in the drive.

F5:
Disk Commands

F8:
Boot A Disk.

TRACK & SECTOR EDITOR

Supports 1541/71/81 Disk Formats

We have created this utility for those of you who have the desire to examine the data on your diskettes in their track and sector / data block format. Also included is the ability to modify sectors and print Hex/Disassemble listings. We feel that you'll find our Sector Editor to be quite easy to use and that it allows a full range of commands.

We cannot, in the scope of these instructions, teach you 1541/71 or 1581 DOS format. For that information, we refer you to Inside Commodore DOS (not currently published), Anatomy of the 1541 Drive by Abacus Software, or The 1581 Dos Reference Guide available from us. These are the best manuals of their kind on the market.

As always, be careful with this utility as irreversible damage can be done to the data on your work disk. For your protection, we suggest always working with a backup of the disk presently under examination and modification.

From the Maverick Main Menu, select the Upgrades & Goodies option and press RETURN. When that menu appears, select the Sector Editor option and again press RETURN. When the Sector Editor Main Menu appears, you will have the following options:

EDIT DISKETTE:

Position the Highlight Bar over the EDIT DISKETTE option and press RETURN. The Editor screen will appear and prompt you with the flashing cursor for the Track you wish to read (in Decimal). If using a 1541 or 1571 disk drive, it will default to track 18, the directory track. You may input tracks 1 through 35 for a 1541 format or tracks 1 through 70 (1 - 35 front, 36 - 70 reverse) for a 1571 format, and press RETURN. If the drive in use is a 1581, the track and sector will default to track 40, again the directory track. You may input tracks 1 through 80. Next, the cursor will move to the Sector input. Although it defaults to 00, you may enter any legal sector in the track chosen, and press RETURN.

At this point, the desired sector will be read in and displayed on the screen. You have many command keys available to you,

[ ] - Change Byte: Use the Space Bar to change value of the byte indicated by the flashing cursor. You may input in decimal or use the Down Cursor key to toggle to Hex input Make your change and press RETURN to lock it in.

[+] - Scan Forward: Use this key to scan forward one sector at a time Notice that at the last sector in the track, it will wrap to the next track, sector 00,

[N] - Next Track: Use this key to scan forward one track at a time. Notice that at track 35 (70 on a 1571 format and 80 on the 1581), it will wrap to track 01.

[J] - Jump To Link: This command has two different operating modes, In track 18, the directory track, you may use it to jump to the first link of any valid program file. Simply place the flashing cursor over the track link and press J. You will be taken to that track and sector. When you are in any other track, pressing J will take you to the next file link, if any, indicated by the first two positions in the sector.

[T] - New Track: Hit T to return the flashing cursor to the Track input window. Input tracks 01 through 35 (70 on a 1571 format and 80 on the 1581) After the track has been selected, you may input a new sector or press RETURN to default to the current setting.

[W] -Write Sector: When all modifications have been made to the current sector, hit W to reWrite that sector to the disk. You will be prompted with “Are You Sure?”. Remove a write protect if necessary and answer Yes or No.

[B] -Block Allocate: Use this option anytime you wish to allocate the current sector, The BAM will be properly updated.

[D] - Disassemble: Hit D to enter the Disassemble Mode. The current sector under examination will be displayed at the bottom of the screen in disassembly code. Please note that the top of the screen still contains the sector map and may be used for position reference. All sectors read into the disassemble buffer are set at $5900. This is only a reference and not an indication of that sector's true address if it were found in memory.

Space Bar: Pressing the Space Bar will move the cursor into the operand field of the current line and allow you to modify the opcode and/or operand.

RETURN: After modification, press RETURN. If the change made to the line was a valid opcode/operand combination, the new code will be locked in, and the cursor will move to the beginning of the next opcode field. If the change made was not a valid opcode/operand combination, the original data is not changed and the cursor returns to the beginning of the line.

W: To Write the modified block to the disk, press W.

Left Arrow: Pressing the Left Arrow key (not the Left Cursor key) will escape to the previous screen.

P: Press P to dump the current buffer to any printer capable of emulating the Commodore 801/1525 printer.

[?] - Help Screens: Press ? to access the built in ASCII Code Set conversion tables. You'll find each symbol defined in hex, decimal, and its ASCII representation in that order. Press Space Bar to view screen two, and press again to exit back where you left off.

[A] - ASCII Mode: Use the A key to input text directly from the keyboard to the data display screen starting at the flashing cursor. Only alphanumeric input is allowed. You may use the Control/T keys to backup the cursor while in this mode. When all changes are made, hit RETURN to escape. If your changes are unacceptable, re-read the sector by hitting S and RETURN to bring up the sector again.

[-] - Scan Back: Use this key to scan backwards one sector at a time. Notice that at sector 00 it will wrap to the previous track, last sector.

[M] - Previous Track: Use this key to scan backwards one track at a time. Notice that at track 01 it will wrap to track 35 (70 on a 1571 format and 80 on the 1581).

[K] - Previous Link: Use this option to reverse read the links that were just read by the Jump command.

[S] - New Sector: Hit S to return the flashing cursor to the Sector input window. Input any legal sector for the current track.

[H] - Hex Mode: Hit H to enter the Hex Mode. The current sector under examination will be displayed at the bottom of the screen in memory map format (Hex map on the left, ASCII map on the right). Please note that the top of the screen still contains the sector map and may be used for position reference. All sectors read into the Hex buffer are set at $5900. This is only a reference and not an indication of that sector's true address if it were found in memory.

Cursor Keys: In this mode, the Cursor Keys move the cursor as normal.

W: Press W to Write the current block to disk.

Left Arrow: Pressing the Left Arrow key (not the Left Cursor key) will escape to the previous screen.

P: Press P to dump the current buffer to any printer capable of emulating the Commodore 801/1525 printer.

Home: From the main edit screen, use the Home key to return the flashing cursor to position 00.

RETURN: From the main edit screen, use the RETURN key to position the flashing cursor to the next line down, first position. When on the bottom line, the flashing cursor will wrap to the top line.

Cursor U/D and R/L: Use these keys to move the flashing cursor on any command screen. They work as normal.

[F] - Block Free: Use this option anytime you wish to de-allocate the current sector. The BAM will be properly updated.

[<-] - Main Menu: Use the Back Arrow key to escape from any command screen to the previous screen.

RESTORE: Return to Track & Sector Editor Main Menu.

The other Main Menu commands are:

NEW DRIVE:
With this option, you can select one drive out of a possible of four disk drives. Device numbers available are 8, 9, 10 and 11. When using a 5 ¼" floppy, this option always defaults to a 1541 format unless a 1571 disk is present in the drive AND you cycle this option until it re-reads the 1571 format in the current drive. At that point, the drive type will be recognized as a 1571. If using a 1581 drive, it will recognize that format automatically.

F1/F3:
Directory

F5:
Disk Command

F8:
Boot A Disk.

DISK COMPARE

Supports 1541/71/81 Disk Formats

Our Disk Compare Utility has been created as a direct result of customer request. It will quickly compare any two like formats on two similar drives and allow easy viewing and modification of both source and target data.

From the Upgrades & Goodies menu, select the Disk Compare option and press RETURN. When the Disk Compare Main Menu appears, you will have the following options:

Compare Disk:
Before using this option, insert disks to be compared in each drive and hit RESTORE to log them in. When the logging process is complete, hit RETURN to begin comparison. Both drives will begin working and when finished, a comparison map will be drawn on the screen. Those sectors with an asterisk (*) represent sectors with non matching data. Those sectors with blanks represent matching data. In the comparison screen the command keys are:

F1/F3:
Fast Cursor Up/Down.

F5/F7:
Fast Cursor Right/Left.

Commodore P:
Print comparison screen to any 1525/801 compatible printer.

<- (ESC):
Escape to main menu.

Space Bar:
Read data from both source and target sectors into memory.

After using the Space Bar to read data from source and target, a new screen will appear displaying the data from the source sector. From this screen you may view and edit data from either the source or target and write data to either. Non matching data is represented by highlighting the appropriate bytes. Your command keys are:

Cursor U/D:
Slow Scan Up/Down.

Cursor R/L:
Fast Scan Up/Down.

R:
(R)e-read source and target sectors for fresh start.

W:
(W)rite - prompts either (S)ource or (T)arget or <- (ESC) to cancel write mode.

J:
(J)ump to next file link, if any.

S:
(S)wap view of source data with target and vice versa.

M:
(M)ode toggle from disassembly to hex and vice versa.

<- (ESC):
Escape back to comparison screen.

Edit Sector Map:
Review last comparison screen. You may re-edit the last scanned disks without re-scanning.

Source Device No.:
Defaults to 8, but may be set at 9, 10, or 11.

Target Device No:
Defaults to 9, but may be set at 8, 10, or 11.

Starting Track No.:
Use RETURN or SHIFT/RETURN to increment/decrement starting track.

Ending Track No.:
Use RETURN or SHIFT/RETURN to increment/decrement ending track.

F1/F3:
Directory

F5:
Disk Command

F8:
Boot A Disk.

RELATIVE FILE COPIER

Supports Any Commodore Compatible Disk Drive

Relative Files are used in Commodore Software whenever fast database file access is needed. Because relative file structure is very different from that of program or sequential files, the copying of these files is best handled by DOS. For this reason, and the fact that we can support ANY Commodore drive produced by Commodore, we have done all file management through DOS. This copier is not as fast as we would like to see but it is super-compatible.

From the Maverick Main Menu, select the Upgrades & Goodies option and press RETURN. When that menu appears, select the Relative File Copier option and again press RETURN. When the Relative File Copier Menu appears, you will have the following options:

Source Device:
Supports device numbers 8 through 15.

Source Drive:
Supports dual drives such as the MSD. Defaults to 0 for single drives.

Destination Device:
Supports device numbers 8 through 15. Before executing two drive copy, be sure that the drives are properly set up and that the correct disks are in the drives.

Destination Drive: Supports dual drives such as the MSD. Defaults to 0 for single drives.

Filename: You must know the file name in advance. Input exact filename only. No Wildcards.

REU QUICK TEST

This utility has been provided to test the integrity of your 1764, 1750, or 1750 Clone. We suggest that you use it before using the Quick File Copier or the Single Drive Fast Data Copier. You shouldn't need it again unless problems occur in the future and you want to rule out a defective Ram Expansion Unit. Please consider this a cursory test program. For a complete test, use the Commodore slow test that came with your REU.

Before using this utility, be sure that your REU in properly seated in the cartridge port. Boot the Maverick and from the main menu, select the Upgrades & Goodies option and press RETURN. When that menu appears, select the REU Quick Test option and again press RETURN.

The REU Quick Test will begin as soon as it appears on the screen. After a very short time the test will be complete.

1764 Units: An abnormal condition is indicated if an X appears in any of the chips in Bank One. Because 1764 Units have NO RAM Chips in Bank Two, an X in each chip location in Bank Two is normal.

1750 or 1750 Clones: An abnormal condition is indicated if an X appears in any of the chips in Bank One or Bank Two.

F7: Use this option to execute the test again. Warning: Do not re- seat the REU in the cartridge port while the computer is ON.

F8:
Boot A Disk.

64K VDC RAM TEST

Commodore 128 Owners Only!

Boot the Maverick and from the main menu, select the Upgrades & Goodies option and press RETURN. When that menu appears, select the 64k VDC RAM Test option and again press RETURN.

SPACE BAR: Use this option to execute the test. Follow on screen prompts.

F8:
Boot A Disk.

FILE TRACER

Supports 1541/71/81 Disk Formats

The File Tracer allows you to conveniently examine, modify or repair a file directly from a disk. Not only does it show how the file is laid out on a disk, but it also gives you the option of seeing the data in two different forms.

For your convenience, we have included 1541, 1581, and 1571 (double sided) support. Please note at this time that all formats will behave in a similar manner except that the directory tracks and total number of tracks vary from format to format.

1541 Format: 35 available tracks, directory on track 18
1571 Format: 70 available tracks, directory on track 18
1581 Format: 80 available tracks, directory on track 40

From the Upgrades and Goodies menu, select the File Tracer, and follow on screen prompts. When the File Tracer Main Menu appears, the menu options are:

SELECT FILE:

Display Mode:

When you have selected this command, you will be prompted to place the disk with the file you wish to trace into the drive. Press the Space Bar, and the program will display the directory of the disk in a window. The window will display directory files and partitions (1581 drives only), if any exist. Partitions will be flagged as SUB, while standard files will be displayed along with their sector lengths. In order to read into a partition (SUB), simply place the Highlight Bar over it and press RETURN. The directory of that partition, if any, will be displayed as before.

Please note: In order to return to a previous partition or to the root directory, you must press RESTORE to return to the Main Menu and use the DISK COMMAND option to initialize the disk to the root directory < / >. Use the CHOOSE A FILE option and the RETURN key as before to return to the desired partition.

Choose a file, using the U/D Cursor key and press RETURN. The filename and the number of blocks being linked by the Tracer will be displayed. When the linking is complete, you will be prompted to press the Space Bar.

Although the File Tracer was made specifically for Program files, we have made allowances for Sequential files. Sequential files will always default to address $1000 even though they really have no load address. Use the addressing for reference only.

The File Tracer program will display a Track and Sector grid. The physical location of the file is shown as a series of yellow blocks on the grid. The beginning of the file is marked by a flashing black cursor. The current track and sector position (in Decimal) of the cursor is displayed at the top of the screen. Also shown is the actual memory address (in Hex) of the indicated block.

Pressing the RESTORE key at any time will return you to the File Tracer Main Menu.

Edit Mode:

Use the U/D Cursor key to move the flashing pointer back and forth through the sectors. When you press the DOWN Cursor key, notice that the flashing cursor moves forward through the file sectors in the order that they are linked together. The UR Cursor key will move the flashing cursor eight blocks at a time.

Press the Space Bar to examine the data in the block currently marked by the flashing cursor. The data will be loaded from the disk and displayed in disassembly format. If you wish to see the data in the Hex/Ascii format press M for Mode, which will toggle between the two displays. Whichever mode you choose will remain active until you change it, even if you decide to trace another file. Let's examine the editing commands for each mode:

Disassembly Mode:

Space Bar:
Pressing the Space Bar will move the cursor into the operand field of the current line and allow you to modify the opcode and/or operand.

RETURN:
After modification, press RETURN. If the change made to the line was a valid opcode/operand combination, the new code will be locked in and the cursor will move to the beginning of the next opcode field. If the change made was not a valid opcode/operand combination, the original data is not changed and the cursor returns to the beginning of the line.

HOME:
To return to the beginning of the block, press HOME when the cursor is to the left of the address column.

J:
When the cursor is to the left of the address column, press J to Jump to the next block in the file, if any.

W:
To Write the modified block to the disk, press W. Note: If you do not write the modified block to the disk before you leave the current screen, all modifications made to that block will be lost.

<- (ESC):
Pressing the Left Arrow key (not the Left Cursor key) will re-display the Track and Sector grid. Depressing again will return you to the File Tracer Main Menu.

Hex/ASCII Mode:

Cursor Keys:
In this mode, the Cursor Keys move the cursor as normal.

HOME:
Press HOME at any time to return to the beginning of the block.

J:
Press J to Jump to the beginning of the next block in the file.

W:
Press W to Write the current block to disk.

<- (ESC):
Pressing the Left Arrow key (not the Left Cursor key) will re-display the Track and Sector grid.

Other Main Menu Options:

EDIT FILE:
Re-displays the Track and Sector grid and allows editing of the currently chosen file.

NEW DRIVE:
With this option, you can select one drive out of a possible of four disk drives. Device numbers available are 8, 9, 10 and 11. Please note that when using a 1571 disk drive, the 1571 type will only be recognized when a true 1571 formatted disk is in the drive and the NEW DRIVE option is cycled.

F1/F3:
Directory

F5:
Disk Command

F8:
Boot A Disk.

FILE VIEWER

Supports 1541/71/81 Disk Formats

We created the File Viewer to allow a fast method of reading sequential and program text files to the screen. You will find that most all BBS sequential files as well as those created by your favorite word processor are supported.

From the Upgrades and Goodies menu, select the File Viewer and press RETURN. The drive should start up and, in a short time, the File Viewer main menu should appear. Starting at the top of the screen, the menu options are:

Select File:

Hit RETURN to read the directory of the disk in the drive. ONLY those files which are PRG or SEa will be displayed. Remember, the file viewer will read all PRG and SEQ files, but only those that are text files will be visually readable. You may use the U/D Cursor to slow scroll, and the R/L Cursor to fast scroll through the listing. Use the SPACE BAR to read the highlighted selection into the view buffer. When reading a 1581 diskette with partitions, the partitions will be listed by partition Name followed by SUB. To read into that partition simply position the highlight bar over it and press SPACE BAR. The partition will be opened and the contents listed. You may read into another partition or load in a file. It's your choice.

When the view buffer is displayed on the screen, the following commands are available:

Space Bar:
Page down through the file. Notice the readability - will not break words in the middle like other readers. If the file is too large to fit in the buffer, it will be read in at the appropriate time and the previous buffer will be overwritten.

Home:
Return to the top of the present buffer.

M:
Mode - Toggle Text Interpretation Mode between True ASCII, CBM ASCII, and Raw Data (Used by some word processors). Hitting the Mode key while paging through a file will return to Home position.

Commodore P:
Print buffer in current mode. Requires a 1525/801 compatible printer.

Back Arrow (ESC):
Exit to the main File Viewer menu.

View File:
Displays the last file read into the buffer and returns to the first display screen of that file.

Device No.:
This option allows you to select one drive out of a possible of four disk drives. Device numbers available are 8, 9, 10 and 11. Please note that when using a 1571 disk drive, the 1571 type will only be recognized when a true 1571 formatted disk is in the drive and the NEW DRIVE option is cycled. Please Note: The File Viewer is intended as a SINGLE DRIVE utility. If multiple drives are ON and you experience problems, we suggest that you turn ALL unneeded drives OFF and retry.

F1/F3:
Directory

F5:
Disk Command

F8:
Boot A Disk.

TROUBLESHOOTING

If you're experiencing problems with the Maverick, we suggest that the first thing you do is attempt to isolate the problem. This is best done by unplugging all, and we mean ALL unneeded peripherals from your system. Extra disk drives, interfaces, printers, modems and joysticks should be unplugged from the computer! Unplugging them from their electrical power source may not be good enough. Again, unplug them from the computer and/or serial port. Try duplicating the problem again, and if the Maverick works now, try plugging in the peripherals one at a time, testing in between additions. Continue until the problem is isolated. The following troubleshooting guide will assume that you have attempted to isolate the problem as described above.

As a closing note, we have found that when you are consistently getting a device not present message, it is a sure sign of bus-loading on the serial line. Before unplugging all devices (drives) from the serial ports, try turning all of them on, assuming they all have different device numbers. This has worked on more than one occasion for us.

Main Menu:

Problem: The Maverick won't load on my equipment.
Solution: a> Be sure the Maverick Master Disk is in the drive, device number 8, and type in < LOAD '*' ,8,1 > and press RETURN. b> See the System Requirements section in the beginning of this manual. If you are running on after-market drives or non-standard equipment, our program may not be compatible. c> If you are running standard equipment, you may want to try loading the Maverick on a friend's setup. If it loads fine, your disk drive(s) may need servicing. If your disk drive has not been serviced for quite a while, you may want to have it checked by a competent repair person. d> If the Maverick won't load on any setup, you may have a defective disk. See Limited Warranty section at the end of this manual.

Single Fast Data Copier:

Problem: Write errors are reported on the destination disk.
Solution: a> The destination disk may be defective. Re-copy using a different destination disk. b> If that doesn't help, you may need to have your disk drive checked for speed and/or alignment.

Problem: The 1581 copiers will not function properly.
Solution: Remove aftermarket fast loading devices from your equipment. They may not be compatible.

Dual Fast Data Copier:

Problem: Copy is not reliable. Original seems to run fine.
Solution: Try the Single Drive Fast Copier first. If that doesn't work, you may be dealing with a protected diskette. Try the Single or Dual Nybbler, and check the parameter listings.

Single GCR Nybbler:

Problem: The Maverick was copying a RapidLok program and locked up in the second phase (RapidLok mode).
Solution: Two drives on while copying RapidLok will cause problems. Turn the unneeded drive off, unplug the serial. as a last resort.

Single or Dual GCR Nybbler:

Problem: Copy won't run. It starts to boot and then 'crashes',
Solution: The original is probably copy protected and requires a parameter. See the parameter listing. If you don't find the desired title, you may want to contact the technical support team at Software Support for advice.

Sector Map Editor:

Problem: The printouts are incorrect or garbled.
Solution: Use a printer/interface that truly emulates the Commodore 801/1525 printers.

Problem: The utility aborts after a only few tracks have been read.
Solution: This utility cannot support more than 4 devices plugged into the system at once. Unplug excess drives, modems or printers from their respective ports.

Maverick GCR Editor:

Problem: The disk drive runs continually after some functions.
Solution: This is normal, as we leave the drive on during certain tasks. This insures that the speed is proper when data is written back to the diskette. Problem: The printouts are incorrect or garbled. Solution: Use a printer/interface that truly emulates the Commodore 801/1525 printers.

Parameter Menu:

Problem: You followed all the instructions and ran the correct parameter over the backup, which gave a 'parameter successful' message, but the backup still fails.
Solution: Most of our newer parameters (Module 2 and greater) have built in version sensors to detect the protection used. These sensors will give proper Fail-Succeed messages. Many of our older parameters on Module #1 do not have these sensors. If you experience this problem, you may have an unknown version. Call the tech support team at Software Support.

Problem: You have experienced a failure on an 8K RAM Needed parameter.
Solution: a> You MUST have 8K added RAM in EACH drive used in the copy process. We suggest you verify that the RAM is present and functioning properly, Also be sure you know the proper RAM location for the added RAM device installed in your drive, b> Many of our 8K parameters require an ORIGINAL source disk. A COPY OF THAT SOURCE DISK MAY NOT BE COPYABLE. c> The Speed of the target drive must be checked on that title and MUST match the target disk used. d> If above items check out OK, and two copy attempts fail, use a quality destination diskette, as poor quality generics are known to fail. Also, turn the verify ON. Our routines are SOLID but diskette quality is a critical factor. e> If a failure occurs while using two drives to make a backup, try one drive only, We have seen instances where both drives individually could copy a title, but the two drives working together couldn't. f> If steps a-e fail, try lowering the target drive speed 3 marks down. We now are aware that some drives will not duplicate some titles at normal speed. g> Assuming all the above has failed, we suggest a drive cleaning and if necessary, alignment by a qualified technician.

Problem: A custom copier demanding a 1541 Drive Only was executed and a non working backup resulted.
Solution: Unfortunately, only standard 1541 drives will reproduce these particular titles. 1541 II drives will not function properly for this purpose.

Data Scanner:

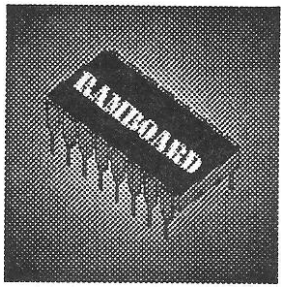
Problem: The printouts are incorrect or garbled.
Solution: Use a printer/interface that truly emulates the Commodore 801, 1525 printers.

Problem: The utility aborts after a only few tracks have been read.
Solution: This utility cannot support more than 4 devices plugged into the system at once. Unplug excess drives, modems or printers from the incoming ports.

Geo * Boot

Problem: When using a PAL system, the process goes to completion but the 1581 copy won't boot properly.
Solution: Before booting the Maverick, remove all fastload utilities from your system. This means ALL, including those installed in the drive or computer.

Problem: After validating the Geo * Boot work disk, (128 version on 5.25' format) the disk will no longer autoboot by resetting the computer.
Solution: Because GEOS will over-write the 128 boot block at first opportunity, we suggest you use the Track & Sector Editor to allocate Track 1 Sector 0 after validating.



RAMBOard

Plug More Power Into Your Maverick

Congratulations on your purchase of Maverick. You now own the finest complete archival utility system ever developed for the Commodore computer.

As you begin to explore the Maverick's capabilities, you will be amazed by its scope and power. You'll probably conclude that there's no place to go from here, that there couldn't possibly be any way to make the program do even more than it does now. But you'll be wrong.

Our RAMBOard was specifically developed as a Maverick accessory. It's a RAM chip mounted on a special board that's designed to plug right into your Commodore disk drive. As an integrated component in a powerful system like Maverick, this custom board becomes the key to a whole new level of sophistication in the cutting edge arena of archival technology.

RAMBOard enables your Maverick to backup programs that simply CANNOT be backed up with software alone. Current and future specialized Maverick parameters use the workspace that RAMBOard provides to archive software that could NOT be backed up in any other fashion. These advanced parameters will continue to playa critical role in the future as copy protection becomes more radical and oblique.

We've designed RAMBOard to be one of the easiest options you could ever install in your computer system. Open your drive, plug in the RAMBOard, re-close the drive. That's it. No soldering, no wire cutting, no hassles. None. In fact, our illustrated instructions are so good, you'll feel like a pro before you even start.

Now that you own the best archival software made, there's no reason to settle for any less performance than your Maverick can deliver. Get a RAMBOard today - and kick your Maverick into overdrive!

RAMBOard: The Essential Maverick Accessory

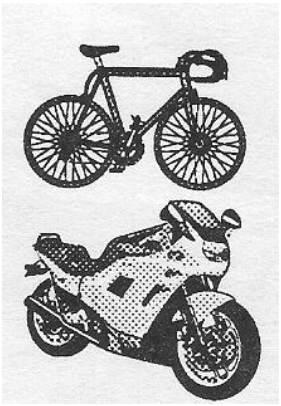
1541/1541C Version - $34.95
1541 II Version - $44.95
1571 Version - $49.95

ATTENTION C128-D AND SX 64 OWNERS:
Sorry - RAMBOard is designed for EXTERNAL drives ONLY.

SOFTWARE SUPPORT INTERNATIONAL

Software Support International
2700 NE Andresen Road, #A-10
Vancouver, WA 98661
Toll-Free Order Line: 800-356-1179
Technical Support: 206-695-9648

The Maverick
Speed Control Box



Pick The Speed You Really Need

If you're doing a lot of archiving of protected software, you know that correct drive speed is critical to successfully backup many programs. The problem is, changing the drive speed means you have to flip your drive over, unscrew the case, flip it back, remove the lid, and use a tiny jeweler's screwdriver to tediously tweak a pod-mounted adjustment screw. Adjusting the drive speed on a 1541 has always been a severe hassle - but the 1571 is even worse. There IS no speed adjustment control in the 1571! And that means that you can't backup many of today's hottest titles. No matter which drive you own, without a Maverick Speed Control Box, you're not going to get all that your RAMBOard has to offer.

Once you've installed our Speed Control Box, you can adjust your drive speed at will, quickly and easily, WITHOUT having to open up your drive! Our small, sleek black box sits right next to (or on top of) your drive. A smooth rotary knob puts precise drive speed control at your very fingertips -literally!

1541 installation is simple: just open your drive (for the last time), and clip on two leads. That's it - no soldering or drilling is required! 1571 installation needs just two simple solder points and you're up and running - if you can solder ANYthing, you can install this! And all you need to run this exclusive Maverick accessory is a RAMBOard. If you're archiving today's complex breed of copy protected software, Maverick, the RAMBOard, and our exclusive Speed Control Box are the finest tools you can own!

1541 SPEED CONTROL BOX - Only $24.95

The 1541 version works on 98% of all versions of the 1541/1541 II drives.

1571 SPEED CONTROL BOX - Only $24.95

The 1571 version requires two simple solder points during Installation.
NOTE: Both versions require BOTH Maverick AND the RAMBOard to operate.

METHODS OF PAYMENTS - We accept money orders, certified checks, Visa, M/C, and Discover. Previous customers may also pay by COD or personal check. All monies MUST be paid in US funds.

SHIPPING & HANDLING CHARGES -- USA (48 states), FPO, APO, US Possessions: Please add $3.50 per order. US shipping is usually by UPS ground. Fast UPS 2nd Day Air is available (US 48 states only) by adding $2.00 per pound (1st lb.) and $1.00 per pound (each additional lb.) more. Alaska & Hawaii: Shipping is by UPS 2nd Day Air. Please add $8.50 per order. Canada: Software -$4.00 for the first two pieces &$1.00foreach additional piece per shipment. Canadian Hardware/Overweight orders & Foreign Countries: S& H varies per order - please call or write.

COD CHARGES: - COD available to previous customers only in all 50 US states. Please add $3.50 in addition to your S&H charges.

OTHER POLICIES - Washington State residents must add 7.6% to their order for state sales tax. Defective items are replaced at no charge, but must be returned to us postpaid within 30 days of Invoice date. All in stock orders are processed within 24 hours. US (48 states) software orders over $100.00 will be shipped 2nd Day Air at no additional charge above the normal $3.50 S&H fee. All prices, policies, and specifications are subject to change without notice. All sales are final unless authorized by management.

CONCLUSION

Let's talk straight with each other. We know the Maverick is quite easy to steal. If you've purchased this program, you're a valued customer. If you haven't, you're a thief. Also, this program was created specifically to allow legitimate purchasers of software to exercise their right to create an archival backup of that software. It was not created to be a tool to allow thieves to build up their illicit libraries.

We're not going to dictate ethics to you. You know what's right and what's wrong. But we will point out a simple fact. Talent, in any field of endeavor, is rare. If the few gifted programmers out there cannot support themselves by sharing their talent with us, we all lose. Please keep this in mind, and use this tool as it was intended. The Maverick was designed to allow you to enforce your rights -- not to deprive others of their fair due.

We've given you the power. But please remember that with power comes responsibility.

LIMITED WARRANTY

If at any time within 90 days of purchase, the Maverick, or any of its subsystem diskettes become defective, you may return the defective disk(s) to Software Support International for repair or replacement. We will repair or replace your defective original diskette(s) with one bearing the exact same version number. We will expect YOU TO BE A REGISTERED OWNER OF THE MAVERICK. NO EXCEPTIONS. Replacements will be given at no charge, upon postpaid receipt of your defective diskette.

THE MAVERICK
(c) Copyright 1988,89,90 KJPB

Master Programmer: Bob Mills

Additional Programming Support by :
David Black III, Lawrence Hiler
Daniel Hill & Mike Howard

Concept and Design by: Les Lawrence
Tech Support: John Mijo
Art work by: Wayne Schmidt
Camera Work by : Paul Hughes -
Docs by: Les Lawrence and Michael Daigle
Parameters by: Kracker Jax

DISTRIBUTED BY

Software Support International
2700 N.E. Andresen Rd. Suite #A-10
Vancouver, Washington 98661
Order Line: 1 (800) 356-1179
Technical Line: (206) 695-9648