

**"SmartDSK"**  
FOR  
**SmartBASIC 1.2**

**Manual**  
BY  
**Walters  
Software  
Co.**

"SmartDSK"

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For use with the ADAM computer and  
the SmartBASIC 1 and SmartBASIC 2  
Programming language.

By

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#### Storage Medium Warranty

Walters Software warrants to the purchaser of this product that the storage medium is free from defective materials and workmanship. If the original storage medium (disk/d.d.p.) fails to function properly, within a (90) day period from the date you receive it. It will be repaired or replaced (at our descretion) if returned to the address above. if after the (90) day period we require a \$5.00 shipping charge.

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WALTERS SOFTWARE  
"SmartDSK"  
UTILITIES  
INSTRUCTIONS  
MANUAL

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GETTING STARTED

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1. You will need an ADAM computer with a Rev. 80 memory console. To verify your revision, simply press the "R" letter key while holding down the "CONTROL" key in the Electronic Typewriter mode. The number will be displayed as the label for the Roman numeral Smartkey IV.
  2. You will also need a T.V. or monitor.
  3. You will also need a memory expander installed in your ADAM computer. The larger the expander the more storage space you will have for your programs.
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LOADING PROCEDURE

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1. Turn on your ADAM computer (by sliding the power switch on the back of the ADAM printer to the on position).
2. Turn on your T.V. or monitor.
3. Turn on your disk drives (if you have one).
4. Insert SmartDSK into one of your drives.
5. Pull the computer reset switch toward you.
6. In a few seconds the title screen should appear.
7. In a few moments the first entry screen will appear.
8. (I FULL SIZE) push smart key "I" to use the whole expander as a ramdisk.
9. (II RESERVE 1 BANK) push smart key "II" to reserve one bank.
10. Remove SmartDSK, insert SmartBASIC 1 or SmartBASIC 2 and push any key.
11. When SmartBASIC is done loading, you are ready to begin.
12. To use the Utilities, insert SmartDSK in a drive, type run (HELLO) and push the return key.

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 RAMDISK SET UP
 

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A ramdisk is a section of computer memory reserved to act like a digital data drive or disk drive. You can store and retrieve files in it much faster and every standard SmartBASIC file command will work. The standard expansion card is 64K, this will give you 61 blocks for your files. Larger cards are available they are 128K, 256K, 512K and 1024K (1 Meg.). The advantage of a large card means more storage space and the convenience of being able to use software that uses the 64K expander without losing the contents of the ramdisk. We'll describe how it works in "Restoring Files".

The program and buffer take up 1K of space in each bank of 64K. The standard catalog will occupy 1K of space in the first 64K bank, with room for 32 file names. By using the Utilities you can add several catalogs, this will increase the number of files you can store, a must for larger cards. Keep in mind each catalog you add uses 1K of space. The ramdisk can be used for many useful tasks, one is accessing utility programs. Once loaded in the ramdisk you can use them when ever you like. They will be there until you INIT, DELETE or turn off your computer. The ramdisk is also faster then the disk drive. Machine code is loaded and saved super fast. This saves time in writing and debugging programs, accessing data files and much more.

## "SmartDSK" BLOCK SIZE CHART

| Expander - | Total blocks - | Full Disk -   | One bank less |
|------------|----------------|---------------|---------------|
| 64K -      | 63 blocks -    | 61 blocks -   | 61 blocks     |
| 128K -     | 126 blocks -   | 124 blocks -  | 61 blocks     |
| 256K -     | 252 blocks -   | 250 blocks -  | 187 blocks    |
| 512K -     | 504 blocks -   | 502 blocks -  | 439 blocks    |
| 1024K -    | 1008 blocks -  | 1006 blocks - | 943 blocks    |

## RESTORING FILES

You have two drive options with a 128K or larger expander, a full or a one bank less ramdisk. With the full ramdisk you can use all the expander as storage, less catalog and control program. With a 256K expander you will have 250 blocks of file storage. Using the one bank less option leaves your ramdisk with 187 blocks free. Using this option will reserve one bank (64K) for use with other programs. What this means is you can save programs in the ramdisk, then pull the computer reset and go to SmartWRITER, fill up the entire space with a document, then reload SmartDSK and SmartBASIC, type (catalog,d7) and the files you saved are there ready to use. If you use the full size ramdisk your last files might be over written. If you have the 64K expander using either option will produce a 61K ramdisk. The 64K expander has only one bank, you can restore files only if you haven't used a program that uses the 64K expander.



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 MENU
 

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MENU will display the A type files of a disk, data pack, or of the ram disk one at a time and will give you the option to load or run them.

## PROGRAM OPTIONS:

|   |  |
|---|--|
| (C)ONTINUE (M)ENU (A)BORT                             | - push the (C) key to use this program.  |
| CHOOSE DEVICE (A/B/C/D/M)                             | - enter the device you want to use.  |
| GETTING DIRECTORY                                     | - the program is getting your catalog.   |
| CHECKING CATALOG                                      | - the program is searching the catalog.  |
| (L)OAD (R)UN (N)EXT                                   | - you are given a choice of operations here.   |
| (C)HANGE  | the L key will load the displayed file into the computers memory. The R key will load and run the displayed file. The N key will display the next legal file in the catalog. The C key will send you to the next command screen. |
| CHANGE DRIVE? (Y/N)                                   | - you may change to another device from this message by pushing the Y key or go to the next command screen by pushing the N key.   |
| CHANGE OR INSERT MEDIA IN DRIVE (*) AND PRESS ANY KEY | - the * will be the device that the program is currently using. This command screen option allows you to start again from the beginning of the catalog you are now using or to change your disk or data pack.                    |

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 MODIFIER
 

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MODIFIER displays disk, tape, or ram disk files one at a time; its starting block; the amount of blocks used by the file; and the file date. You may lock, unlock, delete, change the file date, as well as change the file type (H/h/A/a). To recover a deleted file simply lock or unlock the file. You may also rename your files with MODIFIER.

## PROGRAM OPTIONS:

|   |   |
|---|---|
| (C)ONTINUE (M)ENU (A)BORT                   | - push the (C) key to use this program.   |
| DO YOU WANT A CATALOG (Y/N)                 | - if you push the Y key you will be asked which drive. If you push the N key you will go to the next command screen.                                      |
| WHICH DRIVE (A/B/C/D/M)                     | - enter the drive letter for the catalog you want.  |
| GETTING DIRECTORY                           | - the program is getting the media's catalog.   |
| PRESS ANY KEY                               | - push any key to return to the catalog command screen.   |
| DEVICE (A/B/C/D/M)                          | - enter the device letter of the device you want to use.  |
| INSERT MEDIA IN DRIVE (*) AND PUSH ANY KEY. | - the (*) will indicate which drive (A/B/C/D/M) that you have choosen. Insert your disk or data pack in the indicated drive and push any key to continue. |



FILE=(H/h/A/a) (N)EXT (D)ELETE  
 (U)N(L)OCK (E)ND (C)HANGE DATE  
 (R)ENAME - choose the option from the following.  
 FILE=(H/h/A/a) - push one of these keys to change the file type.  
 (N)EXT - push the N key to display the next file in the  
 catalog.  
 (D)ELETE - push the D key to delete the file.  
 (U)N(L)OCK - push the U key to unlock the file.  
 Push the L key to lock the file.  
 Push either key to recover the file.  
 (E)ND - push the E key to write the catalog back to the  
 directory.  
 (C)HANGE DATE - push the C key to go to the change date command  
 screen.  
 (R)ENAME - push the R key to go to the rename command  
 screen.  
 ENTER DAY , MONTH , YEAR - this is the change date command screen. enter  
 the day then a "," then the month then a ","  
 then the year and push the return key.  
 (D)IRECTORY (F)ILE - push (D) to change the directory name.  
 - push (F) to change the file name.  
 ENTER NEW NAME - this is the rename command screen. Enter the  
 new name and push the return key.

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COPY

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COPY will copy disks, data packs, and the ram disk. Lets you choose the source and destination devices, reads the catalog and only copies the blocks used. Has an override feature to copy all blocks. Also corrects the blocks left when copying from different size medias, example (tape 253 blocks to disk 159 blocks). You can also copy between center directory (HE) and right directory (GW) tapes, without running the tape drives excessively.

PROGRAM OPTIONS:

(C)ONTINUE (M)ENU (A)BORT - push the (C) key to use this program.  
 SOURCE DEVICE (A/B/C/D/M) - enter the device letter for the source.  
 DESTINATION - enter the device letter for the destination.  
 DEVICE (A/B/C/D/M)  
 COPY BLOCKS IN (C)ATALOG? xx- if you push the C key you will copy only the  
 COPY (A)LL BLOCKS blocks that are in the catalog indicated by  
 the xx. If you push the A key you will copy  
 the entire media.  
 COPY BETWEEN DATA AND GAME - this screen will come up when you use tape  
 TAPES ( Y / N ) drive only. If you are using tapes with the  
 same format on them you may push the N key.  
 Push the Y key if one tape is a (HE) tape and  
 the other tape is a (GW) tape.  
 INSERT SOURCE MEDIA IN DRIVE- the (\*) will be the drive letter you chose for  
 (\*) AND PRESS ANY KEY. your source (A/B/C/D).  
 INSERT DESTINATION MEDIA IN - the (\*) will be the drive letter you chose for  
 DRIVE (\*) AND PRESS ANY KEY. your destination (A/B/C/D).  
 DESTINATION IS SMALLER - the (xx) will be the number of blocks that the  
 COPYING (xx) BLOCKS smaller media can hold.



READING SOURCE - the program is reading your source media.  
 WRITING DESTINATION - the program is writing to your destination media  
 (D)ONE (A)NOTHER - push (A) to do another copy, same drives.  
 push (D) to return to the title screen.

### MANAGER

MANAGER will let you transfer files from one disk or tape to another. You view one at a time with the option to copy the file or not. It will copy all file types, even SmartBASIC. Another option you have lets you pass up a file the first time or the next time allowing you to transfer your files in any order you wish.

#### PROGRAM OPTIONS:

(C)ONTINUE (M)ENU (A)BORT - push the (C) key to use this program.  
 DO YOU WANT A CATALOG (Y/N) - if you push the Y key you will be asked which drive. If you push the N key you will go to the next command screen.  
 WHICH DEVICE (A/B/C/D/M) - enter the device letter for the catalog you want.  
 GETTING DIRECTORY - the program is getting the media's catalog.  
 PRESS ANY KEY! - push any key to return to the catalog command screen.  
 SOURCE DEVICE (A/B/C/D/M) - enter the device letter for your source media.  
 COPY THIS FILE (Y/N) - push the Y key if you want the program to transfer the file. Push the N key if you don't want the file to be transferred.  
 MORE FILES (Y/N) - push the Y key if you want the next file to be displayed. Push the N key if you don't want any more files.  
 FILES CORRECT (Y/N) - if you have made a mistake push the N key and you can start again. Push the Y key to continue.  
 DO YOU WANT THE FILES LOCKED (Y/N) - if you want all the files to be locked that are transferred then push the Y key. Push the N key if you don't want the files locked.  
 DESTINATION DEVICE (A/B/C/D/M) - enter the device letter of the destination device.  
 COPY BETWEEN GAME AND DATA TAPES? (Y/N) - this screen will come up when you use tape drives only. If you are using tapes with the same format on them you may push the N key. Push the Y key if one tape is a (HE) tape and the other tape is a (GW) tape.  
 FILING - when you see "FILING" flashing on the screen the program is busy transferring your files.

When the MANAGER has transferred all your files it will go to the title screen.

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 TOOLKIT
 

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TOOLKIT allows you to use any part of a buffer that starts at address 30000. You can load from 1 to 16 blocks of data or files from a tape, disk, or from the ram disk. You may then view this data or file and modify it as you wish, then copy it back to the original or different media. There is a search feature, that lets you use the computer, to look for a specific pattern of from one to four bytes. A block modify option may be used to fill larger areas of your buffer with any single value from 0 to 255.

## PROGRAM OPTIONS:

- |                             |   |
|-----------------------------|---|
| (C)ONTINUE (M)ENU (A)BORT   | - push the (C) key to use this program.   |
| (O)FFSET                    | - this option allows you to change the value you see for the addresses in your buffer. Example: If you use a one block buffer, you can have a starting address of 0 or any value to 64511. Each additional block, that you add to your buffer size, will reduce you highest starting value by 1024. |
| ENTER LOWEST BUFFER VALUE   | - enter your buffer address start value.  |
| SOURCE DEVICE (A/B/C/D/M)   | - enter the letter for the device you wish to use the program with.   |
| START BLOCK                 | - the start block on your media.  |
| # OF BLOCKS                 | - the amount of blocks loaded into and the size of your buffer in memory.   |
| READING SOURCE              | - tells you that blocks are being loaded into your buffer.  |
| (R)ETURN (M)ODIFY (D)ISPLAY | - choose the option from the following.   |
| (C)OPY (+)(-)PAGE           |   |
| (R)ETURN                    | - lets you go to the title screen.  |
| (M)ODIFY                    | - lets you go to the modify command screen.   |
| (D)ISPLAY                   | - lets you jump to any place in your buffer.  |
| ADDRESS                     | - enter the address in you buffer you want to go to.  |
| (C)OPY                      | - lets you copy the blocks in your buffer to your original or to another media. You can also change the location of the blocks going to the destination media.  |
| DESTINATION                 | - the device to receive the blocks from your buffer.  |
| DEVICE (A/B/C/D/M)          | - where the first block goes.   |
| COPY TO BLOCK #             | - enter the number of blocks to be copied to the media. This value will be from 1 to the size of your buffer.   |
| # OF BLOCKS                 |   |
| COPY MEDIA ARE YOU SURE     | - push the Y key to start the copy option. Push the N key if you made an error.   |
| (Y/N)                       |   |
| WRITING DESTINATION         | - tells you that blocks are being transferred to your media.  |
| (+)(-)PAGE                  | - push the + key to advance one full screen, push the - key to retreat one full screen of data.   |

SMART KEY - this is the modify command screen.

I PRESS TO MOVE. - push smart key I to move data up or down in the  
- buffer.

II PRESS TO ADVANCE. - push smart key II to go one byte forward and  
not change the byte.

III PRESS TO BACK UP. - push smart key III to go back one byte and not  
change the byte.

IV PRESS FOR BLOCK MODIFY- push smart key IV to go to the block modify  
option.

ENTER START ADDRESS - enter the start address for the first byte you  
want changed.

ENTER END ADDRESS - enter the address of the last byte you want  
changed.

ENTER VALUE - enter the value you want in all of the  
locations of your buffer.

ARE YOU SURE (Y/N) - push the Y key if everything is okay. Push  
the N key to start again.

V PRESS FOR SEARCH. - push smart key V to go to the search option.

# OF BYTES (1-4) - enter the size of your pattern 1,2,3, or 4.

BYTE 1 - enter the first value you are looking for.

BYTE 2 - enter the second value of your pattern.

BYTE 3 - enter the third value of your pattern.

BYTE 4 - enter the fourth value of your pattern.

The pattern, if found, will appear on the  
bottom of the first column of the data screen.

PRESS ANY NUMBER - to replace the byte of the address on the  
TO REPLACE BYTE. display, just enter the value you want and  
push the return key.

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VERIFIER

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VERIFIER checks your disks or data packs for bad blocks, lets you check  
any block or number of blocks.

PROGRAM OPTIONS:

(C)ONTINUE (M)ENU (A)BORT - push the (C) key to use this program.

SOURCE DEVICE (A/B/C/D) - enter the letter of the device you want to use.

START BLOCK # - enter the number of the start block.

ENDING BLOCK # - enter the number of the last block to check.

BLOCK xx - xx indicates the number of the block that the  
program is checking.

CHECKING MEDIA - while this message is on the screen, your media  
is being verified.

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 INIT
 

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INIT will initialize your disks, data packs, or the ram disk correctly. This erases everything so be careful when using this utility. Up to 11 characters can be used in the volume name including spaces. It will also add up to 127 catalogs, each catalog takes up one block on a disk or data pack, and can hold 39 file entries.

## PROGRAM OPTIONS:

(C)ONTINUE (M)ENU (A)BORT - push the (C) key to use this program.  
 DEVICE (A/B/C/D/M) - select the device you want to initialize in.  
 INIT NAME - enter the volume name of up to 11 characters.  
 # CATALOGS - enter the number of catalogs 1 to 127.  
 INIT CATALOG ARE YOU SURE - push the Y key to initialize your media.  
 (Y/N)

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 HELLOABCD
 

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HELLOABCD to use this utility type brun (HELLOABCD) and push the return key. This utility changes your SmartBASIC 1 (only) tape or disk to run a HELLO file from tape drive 1, or tape drive 2, or disk drive 1, or disk drive 2; every time it is booted. The HELLO file can be on a different tape or disk. To run a HELLO file, that is on a disk or tape other than the one that contains basic, insert basic in any drive other than the default drive. Insert the program media in the default drive after pulling the computer reset. Make sure that you insert it before basic is finished loading.

## PROGRAM OPTIONS:

(C)ONTINUE (M)ENU (A)BORT - push the (C) key to use this program.  
 OPERATING DRIVE (A/B/C/D) - enter the drive your copy of basic is in.  
 INPUT DRIVE (A/B/C/D) - enter the default drive, the one that will have the HELLO file in it when basic is booted.  
 COPY COMPLETE PRESS ANY KEY - done.

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 PURGE
 

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PURGE will get rid of deleted files from the catalog and squeeze the contents of a disk, data pack, or the ram disk; and get rid of the (NO MORE ROOM) errors when you have plenty of room on your media.

## PROGRAM OPTIONS:

(C)ONTINUE (M)ENU (A)BORT - push the (C) key to use this program.  
 DEVICE (A/B/C/D/M) - enter the letter of the device you want purged.  
 PURGING - while the flashing word "PURGING" is on the screen your media is being purged.

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CAUTION: USE OF THE CONTROL-C KEY FUNCTION, IF NOT USED WITH CARE  
MAY CAUSE LOSS OF YOUR FILES OR DESTRUCTION OF YOUR  
DIRECTORIES.

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You may use the control-c key function to return to the title screen at any time during the running of any of the Utility programs. If you have started an option that you do not want, and the program has not started to write data on the tape or disk. If the tape or disk is running, it is better to allow the program to complete the operation, then go back and make any changes.

Example 1: If you are using the PURGE program to remove deleted programs from your tape or disk, and the word PURGING is flashing on the screen, then you push the control-c key, all of the files may be lost. If you allow the program to finish running all you loose are the deleted files.

Example 2: While using the MODIFIER program, you may use the control-c function to return to the title screen any time before pushing the E key.

Because of built in error testing you may sometimes have to push the control-c key twice to return to the title screen. If you push the control-c key several times in a row you may cause the smartBASIC to suffer a FATAL SYSTEM ERROR because of stack overrun.

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#### ERROR TESTING

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All of the programs have error testing and you may see some of the following messages.

ERROR - - TRY AGAIN! This message tells you that you have pushed an illegal key. Wait till the working screen returns then try again.

NO MEDIA IN DEVICE (letter of device) This message tells you that something is wrong in the device you have tried to use. You may have pushed a wrong key for the device you wanted to use. The tape or disk may not be properly seated in the drive or you may have forgotten to put the tape or disk in the drive.

CAN NOT FIND DEVICE (letter of device) This message tells you that the device you have tried to use is not available. In order to correct this situation, you will have to make sure that your device is plugged in and turned on, then you will have to reboot the program.

|             |                 |  |            |                 |
|-------------|-----------------|--|------------|-----------------|
| WRITE ERROR | (C)ONTINUE      |  | READ ERROR | (C)ONTINUE      |
| BLOCK (xx)  | (R)ETRY (A)BORT |  | BLOCK (xx) | (R)ETRY (A)BORT |

(xx) will be any number from 0 to 1008 indicating which block could not be written to or read from.



These messages tell you that your tape or disk has a bad or weak block that could not be written to or read from. You may try to write to or read from this same block by pushing the R key, you may continue to the next block on the tape or disk by pushing the C key, or you may go back to the title screen or controlling section of the program by pushing the A key.

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WE DO NOT RECOMMEND THAT YOU USE THE (C)ONTINUE OPTION FOR EITHER READ OR WRITE ERRORS BUT HAVE PROVIDED IT FOR THE RARE OCCASION THAT IT IS NEEDED FOR A SPECIAL APPLICATION.

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**BAD DIRECTORY** This message tells you that the program can not read the catalog.

**BAD SYMBOL USED!** This message tells you that you have tried to use a character that is not allowed.

**NAME TOO LONG!** This message tells you that you have tried to use too many characters in your name.

**CATALOG FILLED!** This message tells you that there is no more room in the catalog for more files.

**NO MORE ROOM!** This message tells you that your tape or disk is full.

**FILE (file name) WILL BE BAD!** This message warns you that if you (C)ONTINUE that the file listed will be bad.

**SAVING OTHER FILES!** This message is used after an error to tell you that the other files on the tape or disk are being saved on the same tape or disk and that you most likely have at least one bad file on that tape or disk.

**CAN NOT COPY RAM DISK TO ITSELF!** This message will warn you that you have tried to copy the ram disk to itself and that it is not allowed.

**DESTINATION MEDIA IS SMALLER THAN SOURCE** This message tells you that you have tried to copy too many blocks to a disk or the ram disk.

**END OF DATA | OUT OF RANGE**  
These messages tell you that you have tried to go beyond the available size of the buffer you have set up.

**NO FILES!** This message tells you that there are no files on your disk, tape, or in the ram disk.



CATALOG TO BIG! This means the catalog on the media is too large for the program buffer. We recommend three to six catalogs.

NO LEGAL FILES This message tells you that there are no files on the disk or tape that the program can use.

CAN NOT READ MEDIA | COULD NOT WRITE TO MEDIA  
 These messages tell you that something is wrong with your tape or disk and that you should check the tape or disk for proper position in the drive or for bad or weak blocks.

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 MATRIX PATCH  
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DOT MATRIX PRINTER PATCH

The SmartDSK program contains its own printer drivers for a dot matrix printer. But you must first modify your SmartBASIC media to access them. To do this first load SmartDSK and SmartBASIC by following the "LOADING PROCEDURE" instructions. Then follow the instructions below. To modify SmartBASIC 1. Type BRUN MATRIX (in capital letters) and push the return key. To modify SmartBASIC 2, type brun matrix (in small letters) then push the return key. Be sure you are using the correct BASIC with these programs.

PROGRAM OPTIONS:

(C)ONTINUE (M)ENU (A)BORT - push the (C) key to use this program.  
 OPERATING DEVICE (A/B/C/D) - enter the drive that your SmartBASIC is in that you wish to modify.  
 READING SOURCE - reading block to modify into buffer.  
 WRITING DESTINATION - block modified and being copied back to media.  
 COPY COMPLETE PRESS ANY KEY - done

MEDIA DOES NOT CONTAIN SMARTBASIC - this means that the media you were trying to modify did not contain SmartBASIC or the correct SmartBASIC program.

-----  
 SOFTWARE MODIFICATION  
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To modify SmartBASIC programs to use the ramdisk within the program you must add or change the device number. Just like you would if you added a second tape or disk drive. For example in SmartBASIC tape drive number 1 is drive number 1 or (d1). The ramdisk is drive number 7 or (d7). \*\* Example (print chr\$4 "write program,d7"). This is a type of program line that would be used in SmartBASIC to write to a program in the ramdisk. The device number directly to the OS (operating system) is (26). When using letters, the ramdisk should be called drive (M).

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## CRUNCHER

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Two cruncher programs are included, cruncher1 for SmartBasic 1 and cruncher2 for SmartBASIC 2. Read the instructions for these programs before trying to use them.

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### INSTRUCTIONS FOR CRUNCHER

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cruncher1 - For SmartBASIC 1.

- 1) Load the BASIC program you wish to make a fast loading program. \* Type LOAD (program name) push the (RETURN) key.
- 2) Brun the cruncher1 program. \* Type BRUN cruncher1 and push the (RETURN) key.
- 3) Insert the file name you wish to use for your bsaved program. \* BSAVE PROGRAM.MA,a00000,10000. Change the PROGRAM.MA to the file name you want. Move the cursor to the end of the line and push the (RETURN) key. Disregard any characters on the next line.
- 4) To run your program, type clear and push the return key, if this is the first program after loading SmartBASIC. If you have run a program then you don't have to clear memory. Type BRUN program name and push the (RETURN) key.

cruncher2 - for SmartBASIC 2.

- 1) Follow the cruncher1 instructions except in line 2 BLOAD the cruncher2 program and then type CALL 56320 and push the return key. Your program will run automatically when BRUN.
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### HELPFUL INFORMATION

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**DISK DRIVES** When using a utility program, if you select to use a disk drive make sure you have the correct disk in the drive. The Utility checks for this the first time you access a disk drive. You can use 160K single sided 5 1/4" and 320K double sided 5 1/4" drives. Also 720K 3 1/2" drives can be used.

**BRUN (program)** To use a utility without running the (HELLO) program. Type brun then the program name, capital letters for SmartBASIC 1 and small letters for SmartBASIC 2 and push the return key. If you have just loaded SmartDSK and SmartBASIC you must type CLEAR and push the return key before brunning a program. This only has to be done the first time.

**CATALOGS** We recommend three to six catalogs. Using to many catalogs can make it hard to find files and cause the Utilities to run slower. The Utilities will only handle 17 catalogs.

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MOVING UTILITIES TO THE RAMDISK

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1. Load SmartDSK and SmartBASIC.
2. Insert SmartDSK into a drive, type RUN HELLO and push the return key.
3. In a few moments the "CHECK" screen will appear. Push the (M) key to go to the main menu screen. Use the arrow keys to move the cursor in front of the word "MANAGER". Push the return key.
4. In a few moments the "MANAGER" main screen will appear. Push the (C) key to continue. Push the (N) key for no catalog. Push the key that refers to the drive that SmartDSK is in. The "MANAGER" program will read the catalog and then display the first file. Skip the SmartDSK file and choose all the files (capital letters for SmartBASIC 1 and small letters for SmartBASIC 2).
5. List of all Utilities files.

| SmartBASIC 1 | - | SmartBASIC 2 |
|--------------|---|--------------|
| HELLO        | - | HELLO        |
| CHECK        | - | check        |
| START        | - | start        |
| TOOLKIT      | - | toolkit      |
| INIT         | - | init         |
| MENU         | - | menu         |
| MANAGER      | - | manager      |
| FORMAT       | - | format       |
| VERIFIER     | - | verifier     |
| COPY         | - | copy         |
| PURGE        | - | purge        |
| MODIFIER     | - | modifier     |

## Patch programs

|           |   |            |
|-----------|---|------------|
| MATRIX    | - | matrix     |
| HELLOABCD | - | not needed |

6. Push the (Y) key to select the file you want. Push the (N) key to skip over that file. When finished push the (N) key when asked "MORE FILES? (Y/N).
7. FILES CORRECT? (Y/N) Push the (Y) key if correct.
8. DO YOU WANT YOUR FILES LOCKED? (Y/N) Choose (Y) or (N).
9. DESTINATION DEVICE? (A/B/C/D/M). Push the (M) key.
10. The program should start transferring the files to the ramdisk. When the MANAGER'S main screen appears, the transfer is all done.
11. Push the (M) to go to the main menu screen. Push the return key. Push the (M) key for the ramdisk.
12. The main menu will now select the programs from the ramdisk. You may now remove the SmartDSK media from the drive.
13. If you transferred only a few programs and select one that was not transferred, you will receive an error message if you try to select that program.