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 \*  
 \* ALL USERS MODELS I/III \*  
 \* IMPORTANT NOTICE PLEASE READ FIRST \*  
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 Make sure you read the indicated pages for the stock number  
 of the package that you are going to use.  
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STOCK NUMBER	ADDENDUM PAGES TO READ
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26-2013	MODEL I version pages 1, 3, 4, 5, 6, and 7 MODEL III version page 2
26-2203	MODEL I version pages 1, 3, 4, 5, and 6 MODEL III version page 2
26-2204	MODEL I version pages 1, 3, 4, 5, and 6 MODEL III version page 2
26-2206	MODEL I pages 1, 3, 4, 5, and 6
26-2207	MODEL III page 2
26-2208	MODEL I pages 1, 3, 4, 5, and 6
26-2209	MODEL III page 2
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## Important Note to Model III Users

From time to time, Radio Shack may release new versions of TRSDOS, the TRS-80 disk operating system. Check with your local Radio Shack or the *TRS-80 Microcomputer News* for notices and instructions on these enhanced versions of TRSDOS.

If you receive a new version of TRSDOS, read the following before making any modifications to your existing software packages (applications, languages, or system utilities):

- Do not convert your Radio Shack software packages for use with the new version of TRSDOS unless you are instructed to do so.
- Before converting a Radio Shack supplied Model I software package to a Model III format, check to see if Radio Shack provides a Model III version of the package. If so, you should obtain a copy of that version.
- If you're using several different software packages, press the RESET button whenever you change software.

Thank-You!

**Radio Shack<sup>®</sup>**

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*           MODEL I USERS
*   IMPORTANT NOTICE PLEASE READ FIRST
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# UPGRADE UTILITY ON TRSDOS 2.3B

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The MODEL I diskette in this package contains a NEW version
of TRSDOS which is not compatible with OLD versions of
TRSDOS, see below for further details. TRSDOS 2.3B is
specially designed for use only with the below listed
packages:  1) 26-2013 SERIES I EDITOR/ASSEMBLER
           2) 26-2204 BASIC Compiler, 26-2208 BASIC Runtime
           3) 26-2203 COBOL Compiler, 26-2206 COBOL Runtime
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OLD TRSDOS diskettes to be used under the NEW TRSDOS MUST be UPGRADED before use. Once UPGRADED, a system or data diskette becomes a NEW TRSDOS data diskette.

OLD diskettes used under NEW TRSDOS without UPGRADEing, may cause extraneous information to be read at the end of files, giving a false End Of File (EOF) indication. Some programs will not function properly under these conditions.

NEW diskettes used under OLD TRSDOS, may not access all data and/or NEW programs may not run correctly.

If you determine that you need to use the UPGRADE utility see page titled "TIPS ON USING THE MODEL I TRSDOS 2.3B UPGRADE UTILITY" contained in this addendum.

NOTE: When changing from one TRSDOS to the other you must use the RESET switch each time the diskette in drive 0 is changed.

RADIO SHACK APPLICATION PROGRAMS WHICH WERE DELIVERED ON AN OLD TRSDOS DISKETTE SHOULD NOT BE UPGRADED.

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OLD:           TRSDOS 2.1, 2.2, and 2.3.
NEW:           TRSDOS 2.3B.
file:          A collection of information stored as one
               named unit in the directory.
program:       A file which causes the computer to
               perform a function.
data:          Information contained in a file which is
               used by a program.
system diskette: A diskette containing TRSDOS. When this
               diskette is placed in drive 0 and the
               RESET switch is pressed, TRSDOS will begin
               to run.
data diskette:  A diskette which does not contain TRSDOS.
               If this diskette is placed in drive 0 and
               the RESET switch is pressed, the screen
               will clear and "NO SYSTEM" will be
               displayed.
UPGRADE:       A program contained on the TRSDOS 2.3B
               diskette.
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*           MODEL III USERS
*   IMPORTANT NOTICE PLEASE READ FIRST
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# XFERSYS UTILITY ON TRSDOS 1.3

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The MODEL III diskette in this package contains a NEW version of TRSDOS which is not compatible with OLD versions of TRSDOS, see below for further details.

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OLD TRSDOS diskettes to be used under the NEW TRSDOS MUST be XFERSYSED before use. Once XFERSYSED, an OLD TRSDOS diskette becomes a NEW TRSDOS diskette and should not be used with OLD TRSDOS again. If you started with an OLD system or data disk, the XFERSYSED diskette will be a NEW system or data diskette respectively.

OLD diskettes used under NEW TRSDOS without XFERSYSing, may cause extraneous information to be read at the end of files, giving a false End Of File (EOF) indication. Some programs will not function properly under these conditions.

NEW diskettes used under OLD TRSDOS, may not access all data and/or NEW programs may not run correctly.

If you need to use the XFERSYS utility see the TRSDOS section of your TRS-80 MODEL III Disk System Owner's Manual.

NOTE: When changing from one TRSDOS to the other you MUST use the RESET switch each time the diskette in drive 0 is changed. You may also XFERSYS onto a NEW data disk. If this is done, all system files of the system disk will be moved onto the data disk.

RADIO SHACK APPLICATION PROGRAMS WHICH WERE DELIVERED ON AN OLD TRSDOS DISKETTE SHOULD NOT BE XFERSYSD.

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-----
OLD:           TRSDOS 1.1 and 1.2.
NEW:           TRSDOS 1.3.
file:          A collection of information stored as one
               named unit in the directory.
program:       A file which causes the computer to
               perform a function.
data:          Information contained in a file which is
               used by a program.
system diskette: A diskette containing TRSDOS. When this
               diskette is placed in drive 0 and the
               RESET switch is pressed, TRSDOS will begin
               to run.
data diskette: A diskette which does not contain TRSDOS.
               If this diskette is placed in drive 0 and
               the RESET switch is pressed, the screen
               will clear and "Not a SYSTEM Disk" will be
               displayed.
XFERSYS:       A program contained on the TRSDOS 1.3
               diskette.
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*
* OWNERS OF THE MODEL I, SERIES-I EDITOR *
* ASSEMBLER, BASIC Compiler, BASIC Runtime *
* COBOL Compiler, COBOL Runtime *
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Differences between TRSDOS 2.3B and TRSDOS 2.3 are:

1. Variable length records have been corrected, in all aspects.
2. In most cases, your computer will not "hang up" when you attempt use of a device which is not connected and powered up.
3. The DEVICE command has been deleted.
4. The following commands have been added:

CLS

This command clears the display and puts it in the 64-character mode.

PATCH 'filespec' (ADD = aaaa,FIND = bb,CHG = cc)

This command lets you make a change to a program file. You need to specify:

- 'aaaa' - a four byte hexadecimal address specifying the memory location of the data you want to change
- 'bb' - the contents of the byte you want to find and change. You can specify the contents of more than one byte.
- 'cc' - the new contents to replace 'bb'

For example:

PATCH DUMMY/CMD (ADD=4567,FIND=CD3300,CHG=CD3B00)  
changes CD3300, which resides at memory location 4567 (HEX) in the file named DUMMY/CMD, to CD3B00.

If this command gives you a STRING NOT FOUND error message, this means that either 'bb' does not exist, or else 'bb' crosses a sector boundary. If 'bb' crosses a sector boundary, you must patch your file one byte at a time. For example:

PATCH DUMMY/CMD (ADD=4568,FIND=33,CHG=3B)  
replaces the contents of the second byte in the above example.

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TAPE (S=source device,D=destination device)  
This command transfers Z-80 machine-language programs from one device to the other. You must specify the 'source device' and 'destination device' using these abbreviations:

T - Tape  
D - Disk  
R - RAM (Memory)

The only valid entries of this command are:

TAPE (S=T,D=D)    TAPE (S=T,D=R)    TAPE (S=D,D=T)

For example

TAPE (S=D,D=T)

starts a disk-to-tape transfer. TRSDOS will prompt you for the diskette file specification and ask you to press <ENTER> when the cassette recorder is ready for recording.

CAUTION: When doing a tape-to-RAM transfer, do not use a loading address below 6000 (Hex), since this would write over TRSDOS or the tape command.

5. These commands have been slightly changed:

BACKUP now checks to see if the diskette which will be your backup copy is already formatted. If it is, BACKUP will ask you if you want to REFORMAT it.

CLOCK will no longer increment the date when the time goes beyond 23:59:59.

COPY now works with only one-drive. For example:

COPY FILE1:0 to FILE3:0

duplicates the contents of FILE1 to a file named FILE3 on the same diskette.

KILL will now allow you to kill a protected file without knowing its UPDATE or protection level. To kill this kind of file, type an exclamation mark (!) at the end of the KILL command. For example:

KILL EXAMPLE !

kills the UPDATED or protected file named EXAMPLE.

(Note the mandatory space between the file name and the exclamation mark.)

LIST only lists the printable ASCII characters.

PROT no longer allows you to use the UNLOCK parameter.

DIR is now in this format:

Disk Name:	TRSDOS	Drive:	0	04/15/81			
Filename	Attrb	LRL	#Rec	#Grn	#Ext	EOF	
JOBFILE/BLD	N*X0	256	1	1	1	1	
TERMINAL/V1	N*X0	256	5	2	1	126	
LOADX/CMD	N*X0	256	5	2	1	0	
*** 171 Free Granules ***							

1. Disk name is the name which was assigned to the disk when it was formatted.
  2. File Name is the name and extension which was assigned to the file when it was created. The password (if any) is not shown.
  3. Attributes is a four-character field:
    - a. the first character is either I (Invisible file) or N (Non-invisible file)
    - b. the second character is S (System file) or \* (User file)
    - c. the third character is the password protection status of the file:
      - X - the file is unprotected (no password)
      - A - the file has an access word but no update word
      - U - the file has an update word but no access word
      - B - the file has both update and access word
    - d. the fourth character specifies the level of access assigned to the access word:
      - 0 - total access
      - 1 - kill the file and everything listed below
      - 2 - rename the file and everything listed below
      - 3 - this designation is not used
      - 4 - write and everything listed below
      - 5 - read and everything listed below
      - 6 - execute only
      - 7 - no access
  4. Number of Free Granules - how many free granules remain on the diskette.
  5. Logical Record Length - the record length which was assigned to the file when it was created.
  6. Number of Records - how many logical records have been written.
  7. Number of Granules - how many granules have been used in that particular file.
  8. Number of Extents - how many segments (contiguous blocks of up to 32 granules) of disk space are allocated to the file.
  9. End of File (EOF) - shows the last byte number of the file.
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## TIPS ON USING THE MODEL I TRSDOS 2.3B UPGRADE UTILITY

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If you determine that you need to use the UPGRADE utility then proceed as indicated below.

Insert your TRSDOS 2.3B system diskette in drive 0, press the RESET switch, and when TRSDOS READY is displayed type UPGRADE <ENTER>. Your screen will display:

TRSDOS DIRECTORY UPGRADE UTILITY

FOR CONVERSION OF TRSDOS 2.1, 2.2, OR 2.3 TO  
TRSDOS 2.3B DIRECTORY FORMAT.

ONCE UPGRADE HAS BEEN EXECUTED, YOUR DISKETTE SHOULD  
NOT BE USED UNDER TRSDOS 2.1, 2.2, OR 2.3 AGAIN.

DO YOU WISH TO CONTINUE (Y/N/Q)?

This means that the directory format on your TRSDOS 2.1, 2.2, or 2.3 diskette will be converted to the TRSDOS 2.3B format. Once you type Y to continue, the screen will display:

INSERT DISKETTE TO BE UPGRADED IN DRIVE 1.  
PRESS <ENTER> WHEN READY.

Insert the diskette you want to convert in drive 1 and press <ENTER>. After successful conversion, the screen will display a CONVERSION COMPLETE message. If you are attempting to convert a diskette which has already been converted, the screen will display a DISKETTE IS ALREADY A 2.3B error message.

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### TECHNICAL NOTE

For all files indicated in the directory that have an End Of File (EOF) not equal to zero, UPGRADE will change the number of records to be one less than the previous record count. Note that in FILE1, the number of records indicated has been changed from 10 to 9 after UPGRADE. For FILE2 the records indicated remain the same since EOF=0.

BEFORE UPGRADE	AFTER UPGRADE
TRSDOS 2.1, 2.2, 2.3	TRSDOS 2.3B
-----	-----
FILE1 EOF=9 10 RECORDS	9 RECORDS
FILE2 EOF=0 10 RECORDS	10 RECORDS

If the TRSDOS 2.1, 2.2, or 2.3 diskette is a system diskette, part of the conversion process will prohibit accidental usage under the TRSDOS 2.1, 2.2, or 2.3 by killing the files listed below:

SYS0/SYS	SYS1/SYS	SYS2/SYS
SYS3/SYS	SYS4/SYS	SYS5/SYS
SYS6/SYS	FORMAT/CMD	BACKUP/CMD
BASICR/CMD	BASIC/CMD	

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The MODEL I diskette that contains your EDTASM package includes TRSDOS 2.3B which is not compatible with TRSDOS 2.1, 2.2, or 2.3. Therefore, a machine language object file created with this package file CAN NOT simply be copied from TRSDOS 2.3B onto a TRSDOS 2.1, 2.2, or 2.3 diskette.

See below for instructions on how to move an object file from TRSDOS 2.3B onto a TRSDOS 2.1, 2.2, or 2.3 diskette.

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# TIPS ON GETTING OBJECT FILES FROM TRSDOS 2.3B ONTO TRSDOS 2.1, 2.2, OR 2.3 DISKETTES

If for example, you desire to use an assembly language function written with TRSDOS 2.3B EDTASM as a "user's external subroutine" under the TRSDOS 2.3 BASIC interpreter, follow the given steps carefully:

- 1) Insert your TRSDOS 2.3B system diskette that contains the EDTASM package in drive 0 and press the RESET switch.
  - 2) Use the EDTASM package to enter and assemble a routine. We have used the SHIFT routine given in Section 7 of your TRSDOS & DISK BASIC Reference Manual as an example.
    - a) Save the source program using the command:  
W SHIFT/SRC:0
    - b) Then assemble the source file with the command:  
A SHIFT/CMD:0
    - c) Quit EDTASM with the command:  
Q
    - d) At TRSDOS READY enter the command:  
LOAD SHIFT/CMD:0
  - 3) Remove your TRSDOS 2.3B diskette.
  - 4) Insert your TRSDOS 2.3 diskette in drive 0 and press the RESET switch.
  - 5) At TRSDOS READY enter the command:  
DUMP SHIFT/CMD:0 (START=X'7D00',END=X'7D09',TRA=X'7D00')
- Reference Section 4 of your manual and note that X'7000' is the lowest address that may be used as the origin of your programs.
- 6) The file on this diskette, named SHIFT/CMD, may now be used as needed under TRSDOS 2.1, 2.2, or 2.3 with the BASIC interpreter as a user's external subroutine.