Radio Shack
Dealer/Franchise
TRS-80 UPDATE

INDEX

PRODUCT NEWS

The following information is provided by Technical Support,
Computer Customer Service, and Computer Merchandising.

SOFTWARE RETURN POLICY, MODEL 100 MULTIPLAN (26-3829)

All returns from the field (i.e. Radio Shack stores) should be returned to:

    TANDY ADVANCED PRODUCTS
    1001 N.E. LOOP 820
    FORT WORTH, TEXAS 76131
    ATTENTION: DEPARTMENT 100

The defective part should be returned with a REPAIR/EXCHANGE MEMO. NOTE: The store
should only return defective components and NOT the entire software package. THE
STORE MUST RETURN DEFECTIVE PART OR A REPLACEMENT WILL NOT BE SHIPPED. The
following part numbers should be used on the R/E memo. The cost to the store is
below.

DESCRIPTION	PART NO.	DEALER COST
Rom assembly	8859557	$14.50
Manual, user's	8749541	2.53
Manual, reference	8749542	2.96
Manual, quick ref	8749543	.56

Tandy Advanced Products will ship replacements within 3 working days of receipt of
returns.

TANDY 1000 LIGHT PEN

The Light Pen for the Tandy 1000 will not be available until sometime this summer.
The stock number and price are not known at this time.

26-1347B PRINTER CABLE:
PROPER USE WITH RADIO SHACK PRINTERS AND IBM-TYPE COMPUTER SOFTWARE

EDITOR'S NOTE: This information was originally published in a memo from Computer
Merchandising, dated January 9, 1985.

Full compatibility requires the proper matching of three essential elements: cable,
printer, and computer application software.

Cable: (26-1347B) provides the correct "parallel" electrical/mechanical interface
between an IBM PC or "PC" clone" and most Radio Shack printers, defined by
Centronics-standard protocol. It does not assure the additional control and
character code (software) compatibility required between the computer application
and the printer.

Printer: The Carriage Return control code causes a Radio Shack printer both to
return the print head to the home position and to advance the paper by one line. In

26-1347B PRINTER CABLE (continued)

"IBM compatible printers," the print need returns home, but a separate line feed
code must be sent to advance the paper. Dip Switches are available on most Radio
Shack printers to defeat the automatic line feed originating under the Radio Shack
protocol:

RADIO SHACK PRINTER	IBM LINE FEED MODE
26-1255 DMP-120	Set Dip Switch 1 to ON
26-1254 DMP-200	Set Dip Switch 1 to ON
26-1251 DMP-400	Set Dip Switch 6 to ON
26-1267 DMP-420	Set Dip Switch 6 to ON
26-1277 DMP-430	Set Dip Switch A-2 to ON
26-1252 DMP-500	Set Dip Switch 6 to ON
26-1256 DMP-2100	Set Dip Switch 6 to ON
26-1272 LMP-2150	Set Dip Switch 3 to ON
26-1192 CGP-115	Set Dip Switch 3 to OFF (left)
26-1275 TRP-100	Set Dip Switch A-2 to ON

For most Radio Shack daisy wheel printers, there are no Dip Switches to suppress the
double line feeds. However, the proper code response can be set by software
command:

26-1158 DW II	No software correction available.
(before Serial #13010463)	
26-1158 DW II	In BASIC, type LPRINT CHR$(27); CHR$(21); <ENTER>
(after Serial #13010463)	
26-1158B DW IIB	In BASIC, type LPRINT CHR$(27); CHR$(21); <ENTER>
26-1237 DWP-210	In BASIC, type LPRINT CHR$(27); CHR$(21); <ENTER>
26-1250 DWP-410	In BASIC, type LPRINT CHR$(27); CHR$(21); <ENTER>
26-1270 DWP-510	Set CR switch to "CR ONLY" position

Computer Software Applications: For dot matrix printers, there is no single "IBM
standard," but Radio Shack has selected the IBM GRAPHIC PRINTER as it's reference.
Our newest dot matrix printers (the DMP-2100P, DMP-430, AND TRP-100) have a built-in
IBM mode setting allowing them to respond properly to IBM MS-DOS software
applications with printer drivers for the IBM Graphic Printer.

Earlier Radio Shack dot matrix printers will not run under IBM software that does
not offer specific Radio Shack printer drivers. While the standard ASCII character
set will probably print properly, other printer commands for line feeds, font
changes, graphics, and special instructions will result in printing errors.

The issue is somewhat more complex for daisy wheel printers since IBM itself did not
offer one until quite recently to thereby establish a "standard". Typically, "IBM
software" will support a variety of non-IBM printers. If the software offers the
appropriate Radio Shack driver, then there should be functional compatibility.
Otherwise, consider the printer "not supported".

Looking toward compatibility for printers already in the field, several "software
printer filters" are under development. These will allow conversion of IBM output
codes (IBM Graphics Printer for dot matrix and Diablo 630 for daisy wheel) to the
appropriate Radio Shack dot matrix or daisy wheel format. With these filters, any
IBM/MS-DOS software that supports the IBM Graphics Printer or the Diablo 630 should
be compatible with most Radio Shack printers. Details and availability will be
communicated to you as soon as the schedule is firm.

EDUCATION

C.A.R.D. III : DIRECTIONS PROGRAM (26-2605) NOW AVAILABLE

C.A.R.D. III: Directions is the latest product to be released in Radio Shack's four-part Computer Assisted Reading Development (C.A.R.D.) series. This instructional package was designed to improve students' ability to read and follow directions by focusing on two skill areas: details and order. This program is ideally suited for use with upper-elementary students (grades 4-6), or with intermediate and secondary students who have no serious word recognition problems, but whose reading reading comprehension is below grade level.

The details segment of C.A.R.D. III contains six lessons that challenge students to read carefully, notice details, and use these details. Using the program, students complete exercises at the computer, such as following a map or identifying all of the numbers in a display.

The order segment of the program contains seven lessons. Recipes and other kinds of directions are used to show that all steps in a set of directions should be completed in order. Students learn hints for solving word problems, and they practice solving them. How directions relate to school work is covered.

Both topics include a test that is designed for use as a pretest/posttest. C.A.R.D. lessons provide hints when appropriate, and display positive feedback messages after correct responses. Remediation is given only when needed.

The C.A.R.D. III Directions curriculum was designed by Philadelphia City School District educators and was used in the Philadelphia schools for more than a dozen years before being converted for use with the TRS-80 Model III and Model 4. C.A.R.D. II Sentences (26-2603) and C.A.R.D. II: Paragraphs (26-2604) have already been released. C.A.R.D. IV: Comprehension (not yet released) will be the final module in the series.

To operate C.A.R.D. III on a stand alone system, the user needs a TRS-80 Model III or Model 4 system with at least 48K of memory and at least one disk drive. Either the TRS-80 AUTHOR I Lesson Presentation Package (26-2707) or the TRS-80 AUTHOR I Lesson Development System (26-1727) is also required for operation.

To operate C.A.R.D. lessons on a Network 3 system, the user needs the Network 3 AUTHOR I Lesson Presentation Package (26-2713). Student stations in the Network 3 system need at least 48K of memory to run C.A.R.D. lessons.

Both the stand-alone and Network versions of AUTHOR I allow the teacher to set up score files to retrieve and store student performance information.

CSR GRAPEVINE

As indicated by the name, "Grapevine", this section is where Customer Service Representatives share information with each other. It is here you can communicate your latest findings and "bits of wisdom" to all CSR's. If you wish to contribute to the CSR Grapevine use the Submission Form attached to RSCC/PLUSCC TRS-80 Update 1985-01 - 1985-04, or send your information to CompuServe ID number 70007,535. Please be sure to include your Name, Title, Telephone Number and Store Number.

NOTE: We attempt to separate fact from fiction but not being omniscient we may occasionally goof. If so, let us know about it. We'll gladly correct ourselves.

All articles which do not include a by-line came from Computer Customer Service.

1985 LONG TERM CAPITAL GAINS LAW AND RS SECURITIES PROGRAMS

A new tax law has gone into effect for 1985, whereby Long Term Capital Gains is calculated on a six month holding period rather than the old twelve month holding period. Our securities programs (Electronic Broker 26-4525, Investment Portfolio Manager 26-1514, Stockpak 26-1507) are written to calculate Long Term Capital Gains on a twelve month period. However, since the holding period rule will revert back to twelve months at the end of 1985, we will not rewrite or patch any of these programs (by the time we got the problems reported and the fixes generated to the field, it would be too late anyway). A simple work around is to add six months to the actual purchase date of the security when inputting the data into the program(s) (e.g. If the security was actually purchased on 06/02/85, specify 01/02/85 when inputting data, as long as you document this for an audit trail).

COMPUTER CATOLOG RSC-14 - OS-9 SCRIPSIT (26-3276) CANCELLED

OS-9 Scripsit (page 45 of Computer Catalog RSC-14) has been cancelled. Possibly it will be replaced with something else, but probably not for a year or so.

EXPANDING MODEL III/4 ACCOUNTING PACKAGES TO THREE DRIVES

Model III/4 General Ledger (26-1540) can be expanded to 3 floppy drives by following the instructions on page 12, in the General Ledger Manual for Error 24.

Accounts Payable can be expanded to 3 floppy drives by following the instructions on page 140 of the Accounts Payable Manual for Error 24.

These expanded packages will interface with General Ledger using 3 floppy drives, however an expanded 3 floppy drive General Ledger will not interface with an expanded 3 floppy drive Accounts Payable. A Model III or Model 4 can only have 2 internal and 2 external floppy drives and an interface between two expanded 3 floppy disk packages would require a fifth floppy drive.

(D. MORRIS & C. HAMBLEY, 01-7879)

PROOFREADING MODEL 4 SUPERSCRIPSIT (26-1595, 01.01.00) DOCUMENTS

WARNING! If your Model 4 SuperSCRIPSIT (26-1595) document has the potential to take up a large portion of disk space (e.g. filling a data disk), plan on investing in either an external drive or a hard disk if you intend to proofread with the SuperSCRIPSIT Dictionary (26-1600). This is because neither SuperSCRIPSIT nor the SuperSCRIPSIT Dictionary leave much room on their respective disk drives for data storage. If you have 128K of memory, one solution is to copy the file up to memdisk, proofread it, then copy back to its original data disk.

JOB COSTING (26-4513, 01.00.00) ON THE HARD DISK

Job Costing will not run on the same (hard disk) system as the 26-46xx Series accounting packages because it uses a different version of RunCOBOL. If the customer wants to run both the accounting packages and Job Costing, they will have to run one or the other off of floppies.

1985 TAX TABLES AND MODEL 12 AND 16 PAYROLL (26-4603 & 26-6203)

The new tax tables for 1985 pose a slight problem for these payroll packages. The married table contains a figure, $10,168.40, that is too large to fit in a field designed for a maximum of $9999.99. This problem will be fixed in version 01.02.00 of Payroll 26-4603 and version 03.00.00 of Payroll 26-6203. In the meantime, if a customer has an employee that grosses more than $46,620.00 annually, he will have to use one of the following work-around procedures.

PROCEDURE ONE

1. Using the Annual Tax Table, calculate the employee's tax liability per pay period.

   To calculate tax liability:
   Pay Rate x # pay periods per year = Gross Pay
   Gross Pay - (# exemptions x $1000) = Total Taxable Amount
   ((Total Taxable Amount - On Amount Over) x Tax %) + $ Amt = Total Annual Tax
   Total Annual Tax / # pay periods per year = Tax Liability per Pay Period.

2. In field 23 of Employee File Maintenance, enter 99.
3. In field 34 of Employee File Maintenance, enter the amount calculated in the first step.

PROCEDURE TWO

If the customer chooses to just use $9999.99 in the Tax Table instead of $10168.40, any employee earning more than $46620 per year will have $168.41 under-withheld. This translates to $3.24 per week so the inability of the system to handle the $10168.40 figure is not as catastrophic as it first sounds.

(D. MORRIS, 01-7879)

SWAPPING DRIVES IN DESKMATE (25-1000, 01.00.00)

Currently you cannot swap drives within Deskmate without having a Deskmate disk in drive B. To fix this problem, move all necessary .EXE files to a data disk in drive B, then the <F10> key from the main menu will allow you to swap current drives. Files will be written to current directory as specified by swap. The 01.01.00 version will allow you to store data to a formatted disk in drive B without having the Deskmate files there.   (GRACE MOONE, STORE #11-7289)

TANDY 1000 SPECIFICATIONS

Joystick Pinouts (J-3 R, J-4 L)

1)	Y-Axis
2)	X-Axis
3)	Grnd
4)	Switch 1
5)	+ 5 Volts
6)	Switch 2

Light Pen Pinout

1)	+ 5 Volts
2)	Ground
3)	LPIN
4)	LPSW*
5-9)	Not Connected

Keyboard Pinout

1)	Data
2)	Busy*
3)	Ground
4)	Clock
5)	+ 5 Volts
6)	Not Connected
7)	Multidata
8)	Multiclk

RGBI Pinouts

1-2)	Ground
3)	Red
4)	Green
5)	Blue
6)	Intensity
7)	+ 12 Volts
8)	Hsync
9)	sync

Parallel Port Pinouts

1)	Strobe *	18)	Ground
2)	Ground	19)	Acknowledge*
3)	Data 0	20)	Ground
4)	Ground	21)	Busy
5)	Data 1	22)	Ground
6)	Ground	23)	PE
7)	Data 2	24)	Ground
8)	Ground	25)	Busy*
9)	Data 3	26)	Not Connected
10)	Ground	27)	Ground
11)	Data 4	28)	Fault
12)	Ground	29)	Not Connected
13)	Data 5	30)	Init*
14)	Not Connected	31)	Ground
15)	Data 6	32)	Auto feed
16)	Ground	33)	Ground
17)	Data 7	34)	Not Connected

J2-Speaker Interface Pinout

1)	sound	2)	ground

Monitor	Horiz	Vertical	Other	Resolution
VM-2	15.701	Khz 60 Hz	Mono	640 x 220
CM-2	15.701	Khz 60 Hz	Color	640 x 225

(B. BENSON, 01-7879)

DESKMATE'S (25-1000, 01.00.00) TELECOM PROGRAM

To get the modem to disconnect from the phone line on the Tandy 1000 using
Deskmate's Telecom feature, type "<CONTROL> <D>". Also here is a sample auto log-on
file that does work.

```
STATUS:   Y,30,7,E,1,ON,OFF,OFF,OFF,0
CALL:     1234567
PAUSE:    8
SEND:     ^M
RECV:     Host Name:
SEND:     CIS^M
RECV:     User ID:
SEND:     00000,00^M
RECV:     Password:
SEND:     SECRET^M
```

(T. KLOSSNER, 01-7879)

DOUBLE-SPACING PROBLEMS ON THE TANDY 1000

Some customers are reporting problems with the Tandy 1000 double-spacing text from
either Deskmate or a word processing program such as WORDSTAR. The line printer
installation in the Tandy 1000 owner's manual *MUST* be followed and the applicable
files must be transferred to any diskette used to boot the computer. The following
example is for a Daisy Wheel printer (actual customer call concerned WORDSTAR):

1. Boot the computer with the system master diskette
2. From the A> prompt enter LPINST
3. Answer the question 'Y'
4. Copy the following files to any diskette used to boot:
      AUTOEXEC.BAT
      LF.COM
      MODE.EXE

The above three files will tell the Tandy 1000 NOT to send a line feed with each
carriage return (CR) sent to the printer.

(L. TAGRIN, 01-7881)

TANDY 1000/1200 HD TECH MODIFICATIONS

Below is a current list of tech mods for the Tandy 1000/1200. These mods can only
be applied by your local service department.

Computer	Bull#	Date Purpose	SN#	Subassembly
Tandy 1000	1000:1	102684		25-1003 modem board
		Modification to allow use if Hitachi modem chip		
	1000:2	111484		25-1000 AX-957 Main Logic PCB
		To correct possible cause of unit appearing dead along with speaker squealing.		

TANDY 1000/1200 HD TECH MODIFICATIONS (continued)

Computer	Bull#	Date Purpose	SN#	Subassembly
Tandy 1000	1000:3	113084		25-1000 AX-9580/9582 Memory Expansion boards. To describe installation of memory expansion boards.
	1000:4	121284		25-1000 Teac and TPI 5 1/4 disk drive To outline test points on drives used in the Tandy 1000.
	1000:5	120784		25-1000 AX-9578 Main Logic PCB Circuit change to printer port to enable use of IBM software and our printers.
Tandy 1200	1200:1	102584		25-3000 Hard drive alignment Outline Tandy 1200 Hard Drive alignment procedures.
	1200:2 rev	101984 110684		25-3000 Main processor board Proper switch settings (S1 / S2) on main processor PCB.
	1200:3	111684		25-3000 Bubble assembly To correct intermittent Read/Write errors.
	1200:4	120484		25-3000 ATA-1073 To explain the purpose of the brackets used on the power supply.
DMP-200	I/O:80			26-1254 double characters w/1000 To modify sensitivity to long strobe pulses w/1000. (B. BENSON, 01-7879)

SWITCH SETTINGS ON THE TANDY 1200 HD'S MAIN PROCESSOR BOARD

There are two switch modules with eight positions each on the Main Processor Board at locations S1 and S2. Switches on these modules are numbered and on/off positions are marked.

The following is a list of switches in S1 switch module and how to set them:

S1-1   In OFF position allows booting from floppy drive "A".
            It must be left in this position at all times.

S1-2   In OFF position when 8087 co-processor is installed.
            In ON position if 8087 socket (U17) is empty.

S1-3 & 4   Both in OFF position.

S1-5 & 6   Determine the type of monitor being used according to the chart below.

SWITCH SETTINGS ON THE TANDY 1200 HD'S MAIN PROCESSOR BOARD (continued)

S1-5	S1-6	Function
OFF	OFF	Monochrome monitor or more than one monitor
OFF	ON	Color monitor in 40x25 color mode
ON	OFF	Color monitor in 80x25 color mode
OFF	OFF	No monitor
ON	OFF	If using a VM-3 or CM-2 with 25-3043 Graphics Tender or 25-3044 Graphics Master

S1-7   In ON position denotes one floppy drive and one hard disk drive.

S1-8   Must be set in ON position at all times.

S2 switch module determines the amount of RAM installed in expansion slots according to the following table:

Amount of RAM in Expansion Slots	S2-1	S2-2	S2-3	S2-4	S2-5
None	OFF	OFF	OFF	OFF	OFF
64K	OFF	ON	ON	ON	ON
128K	ON	OFF	ON	ON	ON
192K	OFF	OFF	ON	ON	ON
256K	ON	ON	OFF	ON	ON
320K	OFF	ON	OFF	ON	ON
384K	ON	OFF	OFF	ON	ON

The Tandy 1200 HD recognizes a maximum of 640K of RAM for system use. Since 256K are existing on the Main Processor Board, then only 384K of RAM can be added in expansion slots.

When installing expansion RAM, address on the Add-on Board must be set such that it will be picked up at the end of the Main Processor Board's memory. RAM must be in a single block of address and may not be fragmented into non-contiguous address blocks.

(B. BENSON, 01-7879)

TANDY 1200 HD SPECIFICATIONS

If when you boot up your system it doesn't work, check the switch settings on the main processor board.

There are 5 card slots from left to right as viewed from the rear:

Slot	Board
1	Floppy drive controller/parallel printer interface
2	Hard disk controller
3	optional
4	optional
5	Video controller

Monochrome Port Pinouts

1)	Ground	7)	Video
2)	Ground	8)	Horizontal sync
3-5)	Not Connected	9)	Vertical sync
6)	Intensity		

TANDY 1200 HD SPECIFICATIONS

Parallel Port Pinouts

1)	Strobe*	10)	Acknowledge*
2)	data1	11)	Busy
3)	data2	12)	PE
4)	data3	13)	Select
5)	data4	14)	Auto feed*
6)	data5	15)	Error*
7)	data6	16)	Initialize printer*
8)	data7	17)	Select*
9)	data8	18-25)	Grounds

Remember the 26-1347 cable changes the parallel port pinouts to match our printer connectors on the printer!!

Settings For the Tecmar Graphics Tender (23-3043)

1)	on	5)	on
2)	off	6)	on
3)	off	7)	on
4)	off	8)	on

When using the VM-2 monitor with Graphics Tender, set switch number 5 on and 6 off on the main processor board (same as a color monitor in 80 x 25 mode).

Processor	8088
Clock	4.77 Mhz
Memory	256K expandable to 640K
Operating System	MSDOS 02.11.00 with GW-BASIC
ROM	16K expandable to 24K
Keyboard	84 key, LED Caps/Number lock, Retractable legs, 6 ft. cable Keyclick
Display	12", monochrome display adapter VM-3 Color display adapter CM-2
Resolution	Graphics 320 x 200 4 color, monochrome 640 x 200 640 x 400 with Graphics Master board

Internal Expansion Slot for 8087
Five user slots 1 required for each of VDG, FDC, HDC.

Printer Interface	DB-5 parallel
Dimensions	5.75" x 19.03" x 15.31"
Power	120 3 60hz 130w switching power supply, light pen, two joysticks, RGBI color monitor, composite video and audio.

Monitor	Horiz	Vertical	Other	Resolution
VM-3	18.5	Khz 60/50 Hz	Mono	320 x 200
CM-2	15.701	Khz 60 Hz	Color	640 x 223

(B. BENSON, 01-7879)

TANDY 1200 FRAMEWORK (25-3160, 01.01.00) ON THE TANDY 1000

When using Framework on the Tandy 1000, the following adjustments will have to be made:

1. To get down a level into a frame (grey +), use:

    <CONTROL>-<Right Arrow>

2. To get up a level or out of a frame (grey -), use:

    <CONTROL>-<Up Arrow>

3. To generate the <Scroll Lock> sequence, use:

    a. <SHIFT>-<Right Arrow>
                 or
    b. <ALT>-<HOLD> and then <HOLD>

We originally informed you that <CTRL>-<BREAK> generates the <Scroll Lock> sequence. This is incorrect.

(S. LATHAM 01-7879)