

**MODEL III**

# **DISK COURSE**

**CAT. NO.  
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**Radio Shack**

**TRS-80**

**SOFTWARE**

**CUSTOM MANUFACTURED IN USA BY RADIO SHACK, A DIVISION OF TANDY CORP.**

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## Introduction

The Disk Course program consists of two Model III diskettes which contain a course in Model III Disk programming. The course is designed for a Model III Computer with a minimum of 32K and two disk drives. This course assumes you have completed the Model III BASIC Course.

After you have completed the Disk Course, you should be able to write clear, concise programs in Disk BASIC.

The computer offers a unique advantage as an educational tool. Each lesson is self-pacing, interactive, and dynamic. It is not like reading a book; you literally talk back to the computer as you learn. You can progress as fast or as slow as you wish. Graphics, animation, and readability make this approach to learning Disk BASIC fun.

During each lesson, there are quick tests to help you gauge your progress. Unlike written tests, the computer will explain why a particular answer is wrong. At the end of each lesson, and before each test, the program will ask if you wish to review the lesson.

## Loading the Lessons

It is assumed you have reviewed the general operational procedures for your equipment as explained in the Disk System Owner's Manual and are now aware of how to power on your computer, load the Disk Operating System, etc.

Before you use the Disk Course, it is strongly recommended that you make a Backup copy of each diskette included in this course. If you are not familiar with Backup and Format functions, please refer to page 11.

1. Turn on the system. If you are not familiar with the Model III System, please refer to your Disk System Owner's Manual for System Start Up (Power Up Sequence).
2. Insert the Disk Course Backup diskette in Drive 0 (the bottom built-in drive, nearest the keyboard). Insert the Drive 1 diskette in Drive 1 (top drive).
3. Press the orange Reset button (in the upper-right corner of the keyboard), and go to the TRSDOS mode.
4. Type: `BASIC` and press `ENTER`.

5. The screen will show:

How Many Files?

Memory Size?

You will type:

Press `ENTER`

Press `ENTER`

6. The screen will display the BASIC version number, the amount of memory left (Free Bytes), and number of files allocated. The last line on the screen shows: `READY > _`.  
You type: `RUN "FOREWORD"` and press `ENTER`.

The Foreword has detailed instructions on using the program and loading the lessons.

## The Lessons

The Disk Course consists of four Lessons and a Foreword. The Foreword explains how to load and use each Lesson. Each Lesson is made up of smaller sub-segments, such as LESSON1, L1P2 (Part 2 of Lesson 1), L1P3 (Part 3 of Lesson 1), etc.

Each Lesson or sub-segment may be studied or reviewed at any time. Once the first part of a Lesson (e.g. LESSON1) is loaded into the computer, it will automatically load the rest of the Lesson (L1P2, L1P3, L1P4, etc.) as needed. To stop a Lesson or go to a sub-segment, press the **BREAK** key. When READY > \_ appears, type **R U N** **"** and the name of the desired lesson or segment. You must press **ENTER** after responding to questions that appear on the screen.

## Lesson 1

Lesson 1 is essentially your introduction to the world of diskettes. It explains the way the Disk System works, the use of line numbers, and how Disk BASIC programs are structured.

---

**R U N** **"** **L E S S O N 1** **"** **ENTER**

Disk BASIC  
Filenames

CMD "S"

SAVE

---

**R U N** **"** **L 1 P 2** **"** **ENTER**

Types of Files

LOAD

RUN

---

**R U N** **"** **L 1 P 3** **"** **ENTER**

KILL

MERGE

---

**R U N** **"** **L 1 P 4** **"** **ENTER**

MERGE

## Lessons (continued)

R U N " L 1 P 5 " ENTER

### Commands (CMD)

**CMD“D:x”**

CMD“L”

CMD“T”

CMD"Z"

**CMD“B”**

**CMD“E”**

CMD“O”

CMD“R”

CMD“C”

**CMD“J”**

CMD“P”

CMD“X”

R U N " L 1 P 6 " ENTER

## Functions

INSTR

MID\$

```

RUN "L1P7" ENTER

```

## LINE INPUT

```

RUN "L1P8" ENTER

```

**TIMES**

### DEF FN (User Defined Function)

R U N " L I P 9 " ENTER

## Hex and Octal Constants

RUN "L1P10" ENTER

### DEFUSR Statement

**USR# Function**

## Lesson 2

Lesson 2 shows you how to use the Disk Operating System, the TRSDOS functions, and the TRSDOS Commands.

---

```
R U N " L E S S O N 2 " ENTER
```

DIR  
FORMAT

KILL  
BACKUP

LOAD

---

```
R U N " L 2 P 2 " ENTER
```

ATTRIB

---

```
R U N " L 2 P 3 " ENTER
```

PROT

FREE

---

```
R U N " L 2 P 4 " ENTER
```

RENAME

COPY

---

```
R U N " L 2 P 5 " ENTER
```

LIB  
CLEAR  
DATE  
ERROR  
PURGE

LIST  
CLS  
CLOCK  
HELP  
ROUTE

DUAL  
TIME  
AUTO  
FORMS

---

```
R U N " L 2 P 6 " ENTER
```

WP  
CREATE  
DO

MASTER  
SETCOM  
PAUSE

APPEND  
BUILD

---

```
R U N " L 2 P 7 " ENTER
```

DEBUG

DUMP

## Lessons (continued)

## Lesson 3

Lesson 3 covers the use and construction of Sequential Files on diskette. The lesson explains in detail how to use the most efficient type of file for any application. Lesson 3 also examines the file structure necessary to hold large quantities of related information.

R U N " L E S S O N 3 " ENTER

## Sequential Access

## Random Access

R U N " L 3 P 2 " ENTER

## Sequential

OPEN

R U N " L 3 P 3 " ENTER

**CLOSE**

PRINT#

RUN "L3P4" ENTER

## Understanding Sequential Files

EOF

RUN "L3P5" ENTER

INPUT#

LINE INPUT#

R U N " L 3 P 6 " ENTER

## Creation and Reading of Sequential Files

R U N " L 3 P 7 " ENTER

## Updating a Sequential File



## Lesson 4

Lesson 4 details the use of Random Access Files. Their construction and use are explained in full.

---

```
R U N " L E S S O N 4 " ENTER
```

Random Access Files      Variable Length Records

---

```
R U N " L 4 P 2 " ENTER
```

Write a Random Access File

---

```
R U N " L 4 P 3 " ENTER
```

FIELD

---

```
R U N " L 4 P 4 " ENTER
```

LSET  
MKI\$

RSET  
MKS\$

MKD\$  
LOF

---

```
R U N " L 4 P 5 " ENTER
```

GET  
CVS

CVD

CVI

---

```
R U N " L 4 P 6 " ENTER
```

Use of Random Access Files

---

```
R U N " L 4 P 7 " ENTER
```

How to Read a Record

---

```
R U N " L 4 P 8 " ENTER
```

Random Access File

---

### Backup Instructions

A Backup consists of two processes:

1. Format (or prepare) a blank diskette for information storage. (You can also re-use an old disk.) The Format process is done automatically if needed when you make a Backup.
2. Backup (or copy) all the information from the original diskette to the new formatted disk.

Here is the step-by-step Backup procedure: (If the computer is on, and at TRSDOS Ready, you may skip steps 1, 4, and 5.)

1. Turn on the Model III computer (the power switch is located about 3 inches from the front, on the right side of the computer, underneath the edge). The bottom diskette drive light will flash briefly. The screen will stay dark. This is normal.
2. Insert the original Program diskette (to be copied) in Drive 0 (the bottom diskette drive, nearest the keyboard). Insert the diskette with the label up. The small square notch in the diskette will be to your left. Close the diskette drive door firmly.
3. Insert the blank diskette (or a diskette you wish to re-use) in Drive 1 (the upper drive), and close the drive door.
4. Press the orange Reset button (in the upper-right corner of the keyboard).
5. The screen will show: Enter Date (MM/DD/YY)?

Type today's date and press **ENTER**. (January 9, 1981 =  
01/09/81 )

The screen will show: Enter Time (HH:MM:SS)?.

Press **ENTER**. TRSDOS Ready will appear with a line of dots.

6. Type: **B A C K U P : 0 : 1** and press **ENTER**.

7. The screen will show: SOURCE Disk Master Password?.

Type: **P A S S W O R D** and press **ENTER**.

## Backup Instructions (continued)

If you are re-using an old diskette, one or two additional questions may appear, depending on the previous contents of the diskette. You may see:

Diskette contains DATA. Use Disk or not?

or :

Do you wish to RE-FORMAT the diskette?

If the questions appear, type ☐ Y and press  for each question.

The computer will format the diskette (in Drive 1), read data from the program diskette (in Drive 0), then transfer the data to the copy diskette (in Drive 1).

8. When the Backup is done, you'll see: \*\* Backup Complete \*\*. You will return to TRSDOS Ready. The diskette in Drive 1 is now identical to the program diskette in Drive 0.
9. Remove the original program diskette and insert the new copy in Drive 0. Store the original program diskette in a safe place. Write the program name on the copy, using a felt-tip pen.