RAINBOW ON DISK contains the programs featured in the pages of THE RAINBOW, The Color Computer Monthly Magazine. It is intended as a companion to the magazine, not as a separate entity. The articles accompanying the programs in THE RAINBOW may include important information and system requirements necessary to the operation of the programs.

The disk is specially formatted and contains both BASIC and OS-9 operating system programs.

This edition of RAINBOW ON DISK includes:

Red, White and Blue Join the sights and sounds celebrating our country's 211th birthday.

Disk Manager These two programs, *Diskdata* and *Locator*, will help keep track of that ever-growing library.

Resistors A colorful way to learn and save time, too! Use it for your next hardware project.

Balance An educational game designed to teach addition and mathematical equality relationships.

Education Notes Improve spelling and dictionary skills with *Spelldown*.

Le Lutin Adventure in the magic fairy world of *Le Lutin*. Two versions are included to support the CoCo 1, 2 or 3.

Data Writer Let CoCo do the work! This converter will write the appropriate BASIC program for the machine language program you supply.

Novices Niche Everything from graphics for any CoCo to a super backup utility for the CoCo 3.

Batter Up Join our national pastime with this computerized baseball trivia game.

Wishing Well Fred Scerbo offers *CoCoKeys* — another in his line of talking CoCo programs.

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The OS-9 files on the "flip" side of this month's RAINBOW ON DISK include:

A Computer's Native Language A pair of procedures designed to allow the user to convert binary modules to ASCII form and then convert the result back to binary. This enables an easy method of transferring modules.

KISSable OS-9 This month's programs include a prime number generator in C and a BASIC09 utility which allows the direct transfer of text files from the CoCo to the Macintosh.

RAINBOW
The Color Computer Monthly Magazine
ON DISK

Instructions For Use

This disk is a "flippy," formatted under Disk Extended BASIC on the front side and under the Microware OS-9 operating system on the back. To access the OS-9 programs on the back, you must remove the disk from your drive, boot your OS-9 system, turn the disk over and reinsert it.

Before you run any of the programs on RAINBOW ON DISK, you should first use the Disk BASIC BACKUP command to make a backup of both sides of the disk, giving you a working copy. You *are* able to back up the OS-9 formatted side of the disk under Disk BASIC. For the protection of the RAINBOW ON DISK master, the disk does not have write-protect notches, so you cannot accidentally write to it.

The Disk BASIC side of the disk is menu-driven. To begin, type RUN"MENU" and press ENTER. A menu of the files appears, from which you may run any of the BASIC programs by pressing its corresponding letter key. The machine language programs, indicated by an asterisk, *will not* run properly from the menu. These machine language files must be loaded and executed with the LOADM and EXEC commands.

When a file is run from the RAINBOW ON DISK menu, part of the menu itself remains in memory. Because of this, you may encounter an OM? Error on some of the programs, indicating that the file is too large for memory. If this occurs, you will have to remove the disk and turn off your CoCo for a few seconds, then LOAD and RUN the program as you normally would from Disk BASIC, bypassing the menu.

How Do I Get to the OS-9 Programs?

The OS-9 side of RAINBOW ON DISK contains two directories: CMDS and SOURCE. It also contains a file, read.me.first, which explains the division of the two directories. The CMDS directory contains executable programs and the SOURCE directory contains the ASCII source code for these programs. BASIC09 programs will only be offered in source form so they will only be found in the SOURCE directory.

OS-9 is a very powerful operating system. Because of this, it is not easy to learn at first. However, while we can give specific instructions for using the OS-9 programs, you will find that the OS-9 programs will be of little use unless you are familiar with the operating system. For this reason, if you haven't "learned" OS-9 or are not comfortable with it, we suggest you read *The Complete Rainbow Guide to OS-9* by Dale Puckett and Peter Dibble.

The following is not intended as a course in OS-9. It merely states how to get the OS-9 programs from RAINBOW ON DISK to your OS-9 system disk. Use the procedures appropriate for your system. Before doing so, however, boot the OS-9 operating system according to the documentation from Radio Shack.

1) Type load dir list copy and press ENTER.
2) If you have only one disk drive, remove the OS-9 system disk from Drive 0 and replace it with the OS-9 side of RAINBOW ON DISK. Then type chd/d0 and press ENTER. If you have two disk drives, leave the sytem master in Drive 0 and put the RAINBOW ON DISK in Drive 1. Then type chd/d1 and press ENTER.
3) List the read.me.first file to the screen by typing list read.me.first and pressing ENTER.
4) Entering dir will give you a directory of the OS-9 side of RAINBOW ON DISK. To see what programs are in the CMDS directory, enter dir cmds. Follow a similar method to see what source files are in the SOURCE directory.
5) When you find a program you want to use, copy it to the CMDS directory on your system disk with one of the following commands:

One-drive system: copy /d0/cmds/ *filename* /d0/cmds/ *filename* -s
The system will prompt you to alternately place the source disk (RAINBOW ON DISK) or the destination disk (system disk) in Drive 0.
Two-drive system: copy /d1/cmds/ *filename* /d0/cmds/ *filename*
Once you have copied the program, you execute it from your system master by placing that disk in Drive 0 and entering the name of the file.

Many of these programs require special loading instructions and other information necessary to the proper functioning of the program. For complete instructions regarding each of the following files on RAINBOW ON DISK, refer to the July 1987 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience.)

Front Side		Back Side	
		OS-9 Files	
Page	**Filename**	read.me.first	
JUL	MENU	**CMDS**	
024	SSBANNER	**Page**	**Filename**
028	USSONGS		
032	DISKDATA	169	prime_tbl
036	LOCATOR	**SOURCE**	
045	RESISTOR	101	cdump
051	BALANCE	102	csave
057	SPELDOWN	169	prime_tbl.c
060	LE LUTIN	171	maclist
060	LELUTIN3		
087	*DATAWRIT		
SRC	DATAWRIT		
095	HI		
095	CIRCLE		
096	VACATION		
097	DISKSEEK		
097	DRIVER		
097	CONVERT		
098	FASTCOPY		
108	TRIVIA		
116	COCOKEYS		