TANDY®

Multi-Pak Interface

for Color Computer 2

The FCC Wants You to Know . . .

This equipment generates and uses radio frequency energy. If it is not installed and used properly, that is, in strict accordance with the manufacturer's instructions, it may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures :

- reorient the receiving antenna
- relocate the computer with respect to the receiver
- move the computer away from the receiver
- plug the computer into a different outlet so that computer and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful : **How to Identify and Resolve Radio-TV Interference Problems.** This booklet is available from the United States Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.

Warning : This equipment has been certified to comply with the limits for a Class B computing device, pursuant to Subpart J of Part 15 of FCC Rules. Only peripherals (computer input/output devices, terminals, printers, etc.) that are certified to comply with the Class B limits may be attached to this computer. Operation with non-certified peripherals is likely to result in interference to radio and TV reception.

TERMS AND CONDITIONS OF SALE AND LICENSE OF TANDY COMPUTER EQUIPMENT AND SOFTWARE PURCHASED
FROM RADIO SHACK COMPANY-OWNED COMPUTER CENTERS, RETAIL STORES AND RADIO SHACK FRANCHISEES OR
DEALERS AT THEIR AUTHORIZED LOCATIONS

LIMITED WARRANTY

I. CUSTOMER OBLIGATIONS

A. CUSTOMER assumes full responsibility that this computer hardware purchased (the "Equipment"), and any copies of software included with the Equipment or licensed separately (the "Software") meets the specifications, capacity, capabilities, versatility, and other requirements of CUSTOMER.

B. CUSTOMER assumes full responsibility for the condition and effectiveness of the operating environment in which the Equipment and Software are to function, and for its installation.

II. LIMITED WARRANTIES AND CONDITIONS OF SALE

A. For a period of ninety (90) calendar days from the date of the Radio Shack sales document received upon purchase of the Equipment, RADIO SHACK warrants to the original CUSTOMER that the Equipment and the medium upon which the Software is stored is free from manufacturing defects. **This warranty is only applicable to purchases of Tandy Equipment by the original customer from Radio Shack company-owned computer centers, retail stores, and Radio Shack franchisees and dealers at their authorized locations.** The warranty is void if the Equipment's case or cabinet has been opened, or if the Equipment or Software has been subjected to improper or abnormal use. If a manufacturing defect is discovered during the stated warranty period, the defective Equipment must be returned to a Radio Shack Computer Center, a Radio Shack retail store, a participating Radio Shack franchisee or a participating Radio Shack dealer for repair, along with a copy of the sales document or lease agreement. The original CUSTOMER'S sole and exclusive remedy in the event of a defect is limited to the correction of the defect by repair, replacement, or refund of the purchase price, at RADIO SHACK'S election and sole expense. RADIO SHACK has no obligation to replace or repair expendable items.

B. RADIO SHACK makes no warranty as to the design, capability, capacity, or suitability for use of the Software, except as provided in this paragraph. Software is licensed on an "AS IS" basis, without warranty. The original CUSTOMER'S exclusive remedy, in the event of a Software manufacturing defect, is its repair or replacement within thirty (30) calendar days of the date of the Radio Shack sales document received upon license of the Software. The defective Software shall be returned to a Radio Shack Computer Center, a Radio Shack retail store, a participating Radio Shack franchisee or Radio Shack dealer along with the sales document.

C. Except as provided herein no employee, agent, franchisee, dealer or other person is authorized to give any warranties of any nature on behalf of RADIO SHACK.

D. **EXCEPT AS PROVIDED HEREIN, RADIO SHACK MAKES NO EXPRESS WARRANTIES, AND ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS LIMITED IN ITS DURATION TO THE DURATION OF THE WRITTEN LIMITED WARRANTIES SET FORTH HEREIN.**

E. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation(s) may not apply to CUSTOMER.

III. LIMITATION OF LIABILITY

A. **EXCEPT AS PROVIDED HEREIN, RADIO SHACK SHALL HAVE NO LIABILITY OR RESPONSIBILITY TO CUSTOMER OR ANY OTHER PERSON OR ENTITY WITH RESPECT TO ANY LIABILITY, LOSS OR DAMAGE CAUSED OR ALLEGED TO BE CAUSED DIRECTLY OR INDIRECTLY BY "EQUIPMENT" OR "SOFTWARE" SOLD, LEASED, LICENSED OR FURNISHED BY RADIO SHACK, INCLUDING, BUT NOT LIMITED TO, ANY INTERRUPTION OF SERVICE, LOSS OF BUSINESS OR ANTICIPATORY PROFITS OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR OPERATION OF THE "EQUIPMENT" OR "SOFTWARE." IN NO EVENT SHALL RADIO SHACK BE LIABLE FOR LOSS OF PROFITS, OR ANY INDIRECT, SPECIAL, OR CONSEQUENTIAL DAMAGES ARISING OUT OF ANY BREACH OF THIS WARRANTY OR IN ANY MANNER ARISING OUT OF OR CONNECTED WITH THE SALE, LEASE, LICENSE, USE OR ANTICIPATED USE OF THE "EQUIPMENT" OR "SOFTWARE."**
NOTWITHSTANDING THE ABOVE LIMITATIONS AND WARRANTIES, RADIO SHACK'S LIABILITY HEREUNDER FOR DAMAGES INCURRED BY CUSTOMER OR OTHERS SHALL NOT EXCEED THE AMOUNT PAID BY CUSTOMER FOR THE PARTICULAR "EQUIPMENT" OR "SOFTWARE" INVOLVED.

B. RADIO SHACK shall not be liable for any damages caused by delay in delivering or furnishing Equipment and/or Software.

C. No action arising out of any claimed breach of this Warranty or transactions under this Warranty may be brought more than two (2) years after the cause of action has accrued or more than four (4) years after the date of the Radio Shack sales document for the Equipment or Software, whichever first occurs.

D. Some states do not allow the limitation or exclusion of incidental or consequential damages, so the above limitation(s) or exclusion(s) may not apply to CUSTOMER.

IV. SOFTWARE LICENSE

RADIO SHACK grants to CUSTOMER a non-exclusive, paid-up license to use the TANDY Software on **one** computer, subject to the following provisions:

A. Except as otherwise provided in this Software License, applicable copyright laws shall apply to the Software.

B. Title to the medium on which the Software is recorded (cassette and/or diskette) or stored (ROM) is transferred to CUSTOMER, but not title to the Software.

C. CUSTOMER may use Software on one host computer and access that Software through one or more terminals if the Software permits this function.

D. CUSTOMER shall not use, make, manufacture, or reproduce copies of Software except for use on **one** computer and as is specifically provided in this Software License. Customer is expressly prohibited from disassembling the Software.

E. CUSTOMER is permitted to make additional copies of the Software **only** for backup or archival purposes or if additional copies are required in the operation of **one** computer with the Software, but only to the extent the Software allows a backup copy to be made. However, for TRSDOS Software, CUSTOMER is permitted to make a limited number of additional copies for CUSTOMER'S own use.

F. CUSTOMER may resell or distribute unmodified copies of the Software provided CUSTOMER has purchased one copy of the Software for each one sold or distributed. The provisions of this Software License shall also be applicable to third parties receiving copies of the Software from CUSTOMER.

G. All copyright notices shall be retained on all copies of the Software.

V. APPLICABILITY OF WARRANTY

A. The terms and conditions of this Warranty are applicable as between RADIO SHACK and CUSTOMER to either a sale of the Equipment and/or Software License to CUSTOMER or to a transaction whereby Radio Shack sells or conveys such Equipment to a third party for lease to CUSTOMER.

B. The limitations of liability and Warranty provisions herein shall inure to the benefit of RADIO SHACK, the author, owner and/or licensor of the Software and any manufacturer of the Equipment sold by Radio Shack.

VI. STATE LAW RIGHTS

The warranties granted herein give the **original** CUSTOMER specific legal rights, and the **original** CUSTOMER may have other rights which vary from state to state.

8-84

Important Note !

Be sure your Color Computer and the Multi-Pak Interface are both turned **OFF** before you connect or disconnect the two units. Also be sure all power is OFF before inserting or removing any Program Paks. Damage to the Color Computer, the Multi-Pak Interface, or Program Pak may occur if the power is **ON**.

Features   1

Tandy's Color Computer Multi-Pak Interface is a welcome addition to the color computer family. With it, you can connect up to four color computer Program Paks™ or interface controllers to your computer at once. Then, when you're ready to change from one program pak to another, simply select another *slot*.

Frequently used program paks will no longer have to be removed and reinserted for use. You can use them over and over without having to change the setup or continually change cartridges.
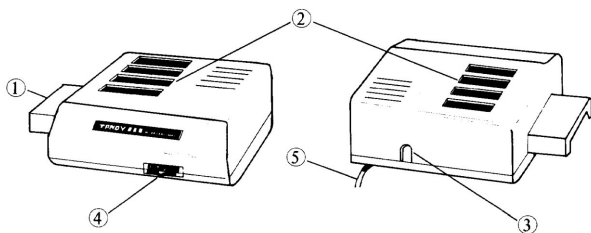

Figure 1. Color Computer Multi-Pak Interface

①**Color computer connector.** Insert this connector into the program pak slot on your color computer.

②**Program pak slots (4).** Insert your program paks into these slots. Slot 1 is toward the front, slot 4 is to the rear.

③**Power switch.** Press in on this switch to turn the power ON. Never insert a program pak into the multi-pak interface when the power is on. Make sure the power for the Multi-Pak and Color Computer is turned OFF when connecting or disconnecting the multi-pak to the color computer.

④**Program pak selector switch.** When you want to use a program pak that is in a specific slot, set this switch to the appropriate number.

⑤**AC power cord.** Connect this to a standard AC outlet or an approved power strip, such as the Plug-In Power Strip (61-2619) or Line Filter (26-1451).

Setting up **2**

To use the Color Computer Multi-Pak Interface, you'll need a Tandy Color Computer, television set, and a Tandy color computer program pak.

Before making any connections to the color computer or the multi-pak interface, be sure the power to all units is OFF !

To connect the multi-pak interface :

1. Make sure all equipment is turned OFF.

2. Locate the program pak cartridge slot on the right side of the color computer. Carefully align the multi-pak interface's computer connector with the cartridge slot. Gently slide the connector into the computer's recessed cartridge receptacle.
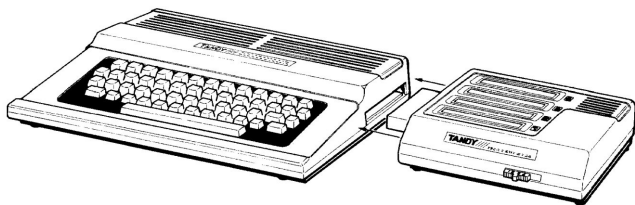

Figure 2.   Color Computer and Multi-Pak Interface Connection

3. Plug the power cords (color computer and multi-pak interface) into an AC outlet or power strip.

Do not power up the color computer or multi-pak interface yet !

The multi-pak interface system is now ready for use.

When you need to disconnect the multi-pak interface from the color computer, turn the equipment OFF. Then, gently separate the two units.

Getting started 3

The color computer multi-pak interface has four slots reserved for program paks. It doesn't matter which slot you select to insert a particular program pak. However, the disk interface pak must be inserted into slot 4 (the rear slot). Just make sure that the system is turned *off* before you insert a program pak.

This means, for instance, that a Color Computer Disk System, a Deluxe RS-232C Program Pak, and a game cartridge can be connected to the color computer system at once. However, you'll only be able to use one device or cartridge at a time.

The cartridge should slide smoothly into the receptacle which is recessed into the color computer multi-pak interface case. If you have difficulty inserting the cartridge, it may be backward. Do not force a program pak into a slot.

To power up the multi-pak system:

If your program pak uses a printer, turn the printer on first. If the cartridge does not use a printer, make sure the printer power is off.

1. Turn all peripherals (disk drive, etc.) ON.

2. Turn the multi-pak ON.

3. Turn the computer ON.

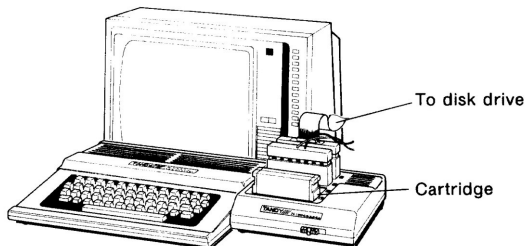Reverse the procedure to turn off the power.

To disk drive

Cartridge

Figure 3. Arrangement of units

Selecting a slot via hardware

Slot selection on the multi-pak interface can be performed via *hardware* (actually moving the switch) or *software* (by POKEing a memory location from BASIC).

To manually select a program pak slot, set the program pak selector switch to the number (1,2,3 or 4) which corresponds to the appropriate slot.

If your slot selection does not switch immediately, press the RESET button on the rear panel of your color computer.

You do not need to turn off the system to change from one program pak to another—just move the selector switch (and press the color computer's RESET button, if necessary. You must always press RESET when selecting the disk interface pak which must be inserted in slot 4).
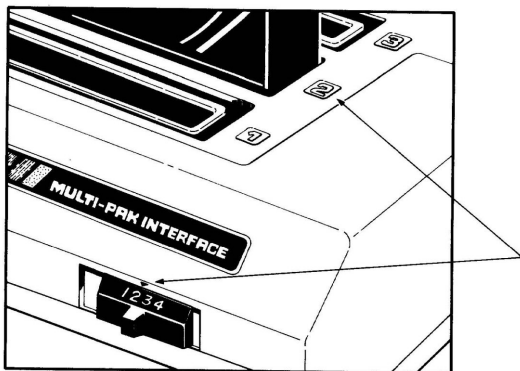

Figure 4. Switch-to-slot selection

Selecting a slot via software

You can select a slot with your color computer using software. To do this, you'll need to use the POKE command. (See *Getting Started With Color BASIC* for details.)

Slot selection is controlled by memory location 65407. The value to be "poked" can be determined from the following:

i.e. 65315, 54, Disable RomPak.

Address	Value	Slot
65407	0	1
65407	17	2
65407	34	3
65407	51	4

For example, to select slot 3, you would enter BASIC and type at the OK prompt:

POKE 65407,34 (ENTER)

Remember that you must be in BASIC before using POKE. To enter BASIC on power-up, set the slot selector switch to a number which specifies an empty slot before turning on the power or pressing RESET.

Once a slot has been selected through BASIC, the slot selector switch will have no effect on slot selection, unless you press RESET.

Troubleshooting and maintenance   **4**

Your multi-pak interface should provide you with years of reliable service. However, if you do have or suspect problems with the unit, check the "Symptom and Cure" table below. If you can't find a solution, take the multi-pak interface to your nearest Radio Shack Computer Center or store for prompt service.
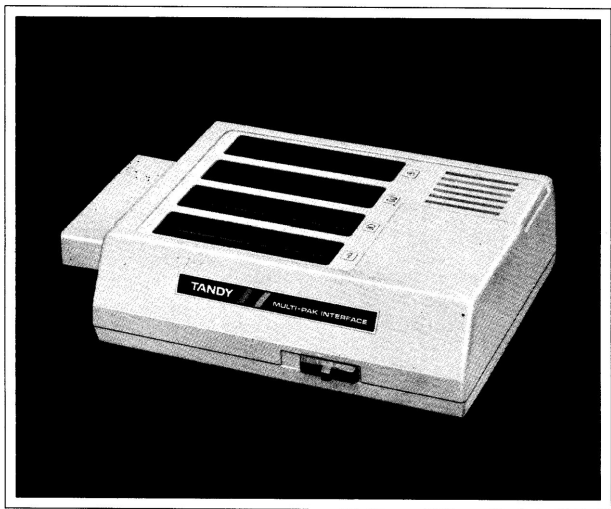
Symptom	Cure
One program pak does not work.	The program pak is defective. Try another program pak in the same slot to find out if it is the multi-pak interface or the program pak that is causing the trouble.
None of the program paks work.	The power cord may be improperly connected or the power has not been turned on. Check that the cord is properly connected and that the power is ON.
The wrong program is run after you've inserted a program pak.	Selector switch is not set to the appropriate position.

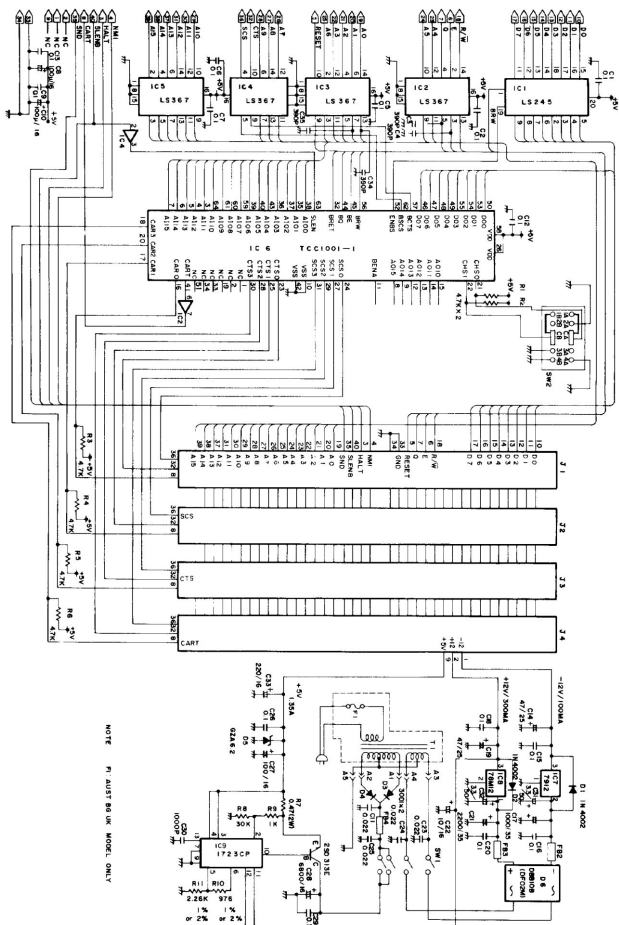Do not insert any foreign objects (such as your fingers) into a program pak slot.

TANDY®

Multi-Pak Interface

for Color Computer 2

Owner's Manual

Schematic Diagram

SERVICE POLICY

Radio Shack's nationwide network of service facilities provides quick, convenient, and reliable repair services for all of its computer products, in most instances. Warranty service will be performed in accordance with Radio Shack's Limited Warranty. Non-warranty service will be provided at reasonable parts and labor costs.

Because of the sensitivity of computer equipment, and the problems which can result from improper servicing, the following limitations also apply to the services offered by Radio Shack:

1. If any of the warranty seals on any Radio Shack computer products are broken, Radio Shack reserves the right to refuse to service the equipment or to void any remaining warranty on the equipment.

2. If any Radio Shack computer equipment has been modified so that it is not within manufacturer's specifications, including, but not limited to, the installation of any non-Radio Shack parts, components, or replacement boards, then Radio Shack reserves the right to refuse to service the equipment, void any remaining warranty, remove and replace any non-Radio Shack part found in the equipment, and perform whatever modifications are necessary to return the equipment to original factory manufacturer's specifications.

3. The cost for the labor and parts required to return the Radio Shack computer equipment to original manufacturer's specifications will be charged to the customer in addition to the normal repair charge.