key tronic corporation

KB 500

OPERATOR'S MANUAL

WARRANTY INFORMATION INSIDE BACK COVER

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AUTORA DE HOTARISTO

HEVER HOAD BOOK

#### INTRODUCTION

Welcome to a new world of convenience and excitement in using your Color Computer\*. Key Tronic, World Leader in Keyboards, is pleased that you have chosen the KB 500, one of the most powerful enhancements now available for the Color Computer.

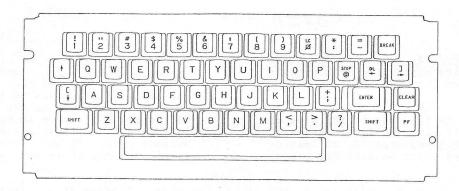
Our reputation for Quality is evident in the professional appearance of the fully sculptured low profile keytop array, the standard typewriter layout with its crisp legends and home row pips, and the added protection of high spring force on CLEAR and BREAK keys.

These are just a few of the outward signs of KTC Quality. Included are an increased data input rate of 15 - 20%, freedom from hanging or sticking keys and easy drop-in

installation with no cutting, gluing, or "custom fitting" required.

All these features are important, but the real bonus of the KB 500 lies in addition of a User Programmable Function (PF) key. Whether your interest runs to some simple utilities, or a sophisticated menu driven program of subroutines, the PF Key offers both neophyte and old hand an opportunity to discover and explore a broad new range of tailored support to enhance your Color Computer operations.

Take time to read through this Manual and become familiar with the instructions for installation and operation. Then get set for new pleasure and excitement in using your TRS-80 Color Computer\*.



#### INSTALLATION

Installing the KB 500 is simple and easy. It requires no special tools, only a #1 Phillips screwdriver, and no specialized knowledge. Follow the instructions below, and you'll be up and running in almost no time, and with little effort.

- 1. First, turn on your Color Computer and verify that everything is working OK. Now shut it off and disconnect the power plug and all peripheral cables.
- 2. Next, select a convenient working area about twice the size of the Computer. You may wish to use some towelling or similar material to prevent scratching to the top while you work. Place the unit bottom up and locate the seven retainer screws that are shown in Figure 1.

NOTE: Removing the screw beneath Warranty Seal damages Seal and voids any remaining Radio Shack Warranty. KTC does not assume responsibility for this act by providing these instructions. Installation of other

vendor products voids the Warranty unless installed by a Radio Shack Service Center and resealed.

3. Loosen the screws (NO SCREW IN X) and, holding the top and bottom together, turn the unit topside up. The loosened screws will fall out, so take care not to lose any. Lift off the top and set it aside.

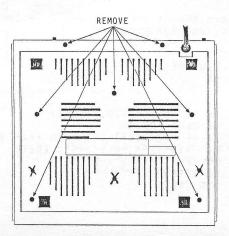


FIGURE 1

<sup>\*</sup>TRS-80 Color Computer is a trademark of Tandy Corporation.

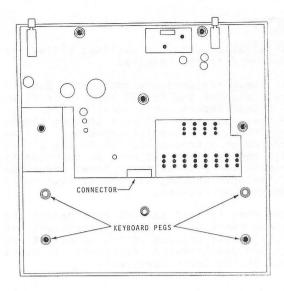


FIGURE 2

- 4. Refer to Figure 2. Remove the keyboard from the pegs and unplug the ribbon cable from the motherboard. Set it aside.
- 5. Compare the KB 500 plug to the plug on the original. If you specified a Revision "F" or above when you ordered, an adapter was also shipped which updates the cable.
- 6. As shown in Figure 3, hold the KB 500 upside down with the cable pointed toward the receptacle on the motherboard. Insert the cable, and carefully rotate the unit till the cable forms a smooth arc beneath the keyboard. Place it on the pegs.

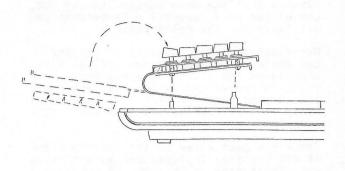


FIGURE 3

- 7. Place the top portion of the case back on the Computer until flanges mate. Grasp both parts firmly and turn unit over. Put the two shorter screws in the front holes and the longer ones to the rear. Be sure NOT to put any screws in holes marked "X" in Figure 1 as these are dummy posts for support only. DO NOT OVERTIGHTEN screws as plastic may strip out. Snug is enough.
- 8. Installation is now complete. Refer to your Color Computer Operation manual and reconnect the system and power cables. To check out the unit, initiate start up in the usual manner, and follow instructions below.

## OPERATIONAL CHECK

 When the OK prompt appears, enter this Basic language program:

NEW (RET)
OK
10 CLS (RET)
20 X=1 (RET)
30 SOUND 20\*X+10,1 (RET)
40 CLSX (RET)
50 IF PEEK(344)=191 THEN X=X+1 (RET)
60 PRINT@236,PEEK(344); (RET)
70 IF X 8 THEN X=Ø (RET)
80 GOTO30 (RET)
RUN (RET)

- 2. When the program starts, the screen is green and 255 appears in the center. This means that location 191, the PF Key, does not indicate key depression. A low toned beep is heard each time the program loops back to the beginning.
- 3. Now tap the PF Key once. The screen is changed to yellow, the beep tone rises in pitch, and 191 flashes on at the instant of change. On the next scan 255 reappears in place of 191. Each time the PF Key is tapped, the color changes to the next one on the chart, and the tone pitch rises up scale. Holding the PF Key down will cause the color and tone to cycle through this schedule continuously.

## PF KEY APPLICATIONS

The Test Program accomplishes two things. It tests the function of the KB 500 with your Color Computer, and illustrates how functions may be assigned to the PF Key.

This exercise only touches the surface of potential uses. The PF Key is really "The Key" to new levels of operation in using the Color Computer. You may, for example, set up menu style subroutines accessed by the PF Key to enable assignment of added

functions to all thirty six alpha/numeric keys. A variety of options are then made available for sophisticated tailoring and customizing of standard programs.

A bit of study in your Color Basic Manual on uses of such statements as "IF-THEN... ELSE" or "INKEYS\$", and a little applied imagination, will soon unlock a world of flexible programming with the PF Key.

## "SEEING" THE KEYS

The table below provides an address listing of the keys as seen by the scanning program of the Color Computer. Try a few

variations on the Test Program as a means of learning how the PF Key can be set up to look at other keys in a subroutine.

#### PEEK LOCATIONS

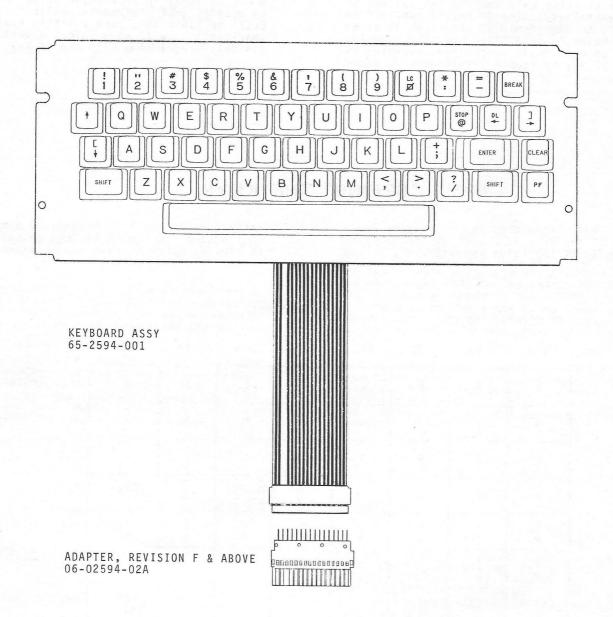
338	339	340	341	342	343	344	345		
0	А	В	С	D	E	F	G	254	VALUE RETURNED*
Н	I	J	К	L	М	N	0	253	
Р	Q	R	S	T	U	V	W	251	
Χ	- Y	Z	†	C +	DELETE	]	SPACE	247	
LC Ø	! 1	2	# 3	\$ 4	% 5	& 6	7	239	
( 8	)	*	+;	<,	=	>	?	223	
ENTER	CLEAR	BREAK		*		PF	L/R SHIFT	191	

"PEEK" LOCATIONS

\*255 is returned for all locations when no key is depressed.

# PARTS LIST

NOTE: There are no user reparable or replaceable parts in this keyboard.



## WARRANTY AND SERVICE

### ALL RETURNS MUST HAVE A RETURNED MATERIAL AUTHORIZATION (RMA)

#### INSPECTION NOTICE

Inspect this product carefully upon receipt for damage. Key Tronic does not accept any responsibility for damages incurred during shipment.

If damage is found, hold all packaging and documents and file a claim with the carrier for repair cost. Key Tronic will repair the damage under terms of Out Of Warranty.

#### LIMITED 90 DAY WARRANTY

Key Tronic warrants the keyboard (Model KB 500) free of defects in material and work-manship to the original consumer- purchaser for a period of 90 (Ninety) days from date of purchase. At its option, Key Tronic will repair or replace merchandise found to be defective. This warranty applies only to the Key Tronic keyboard, and in no circumstances covers incidental or consequential damages through consumer misuse or modification of the product.

#### NOTE:

- Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.
- Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you.
- 3) This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Should you require warranty service under the terms of this agreement, please conform to the following procedures:

#### PACKAGING NOTICE

REASON FOR RETURN

Please retain original packaging for reuse should your unit ever need to be returned for service. The foam shell and the bag in which you received it are a custom design to protect the keyboard from electrostatic and mechanical shock in shipment.

\*TRS-80 Color Computer is a trademark of Tandy Corporation.

#### TECHNICAL ASSISTANCE

Should you encounter problems with the use of this keyboard, first consult your owner reference manual to insure that you aren't creating an operations error. Should this check indicate a possible problem with the keyboard, please contact our Product Support Specialist (PSS) to obtain technical assistance.

To reach the PSS, call our toll free line, 1-800-262-6006, between 8AM and 4PM Pacific Standard Time, Monday through Friday.

#### SHIPPING INSTRUCTIONS

Prior to shipping your keyboard back to Key Tronic, contact Customer Service by calling 1-800-262-6006 Monday through Friday during the hours of 8AM through 4PM PST. You will be given a Returned Material Authorization (RMA) number for the shipment. This RMA is to be posted prominently on the label side of the shipping carton. Fill in the Service Card below, and pack with the keyboard. Be sure all requested information is entered to insure efficient handling. NOTE: The RMA MUST be posted on outside, or shipment will not be accepted at the dock.

The unit MUST be repacked in the original packaging to protect the unit in shipment from electrostatic and mechanical shock.

The keyboard is to be shipped to Key Tronic at your expense. If the unit is still under warranty, it will be returned via prepaid UPS Surface. The unit will be repaired free of charge promptly. If repairs are made for Out Of Warranty conditions, the keyboard will be returned UPS Surface or other mode selected by you at your expense.

#### **OUT OF WARRANTY**

For Factory Service after warranty period, follow Shipping Instructions. Repairs will be made at your expense. Normal turnaround is ten days on prepaid returns, subject to availability of parts.

#### PLEASE NOTE

The Warranty is rendered invalid if unit is opened, repaired at another facility, used on other than TRS-80 Color Computers, or in any way tampered with or modified.

CUT KEYBOARD SERVICE CENTER INFORMATION RMA NUMBER NAME ORDER NUMBER STREET/BOX NUMBER SERIAL NUMBER CITY ZIP STATE PHONE BE SURE RETURNED MATERIAL AUTHORIZATION AREA CODE EXTENSION NUMBER NUMBER IS POSTED ON OUTSIDE OF PACKAGE.

