

BYTE BANDITS  
OF AMERICA

AUGUST

1987

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TRS-80 NEWS:

Well, now that I have settled back from vacation, I'll try to catch up to the Club functions as soon as I can. We sort of took a two week Grand Tour of the U.S.A. by auto and camper. It was a challenge and an exhausting tour. The whole U.S.A. is well and worth our total support.

MODEL II

Al had to use his Model II at home, so we don't have ready access to the Model II Machine. This means that if you have an emergency problem, please bring your machine to the Club meetings with you. We can come over to your place to check your computer if it is necessary.

ODE TO THE MODEL I

This year is the 10th Anniversary of the Model I Computer. In the August, 1987, edition of 80 Micro is an historical account of the Tandy Computer Line, and a review of the Model I System. It would be practical to obtain this issue.

TANDY CUSTOMER SERVICE INFO:

These are the latest in Customer Services Phone #'s from Tandy land:

Customer Service  
400 Atrium  
One Tandy Center  
Fort Worth, TX 76102

Phone # 817/338-239"N"    Spread Sheet - Word Processor  
                          "1"    Accounting  
                          "2"    Language - Operating Systems  
                          "4"    Hardwares  
                          "5"    Color Computer - Laptops  
                          "6"    Education

80 MICRO DISKS 1000/2000/3000:

80 Micro has begun to service these machines, so Programs listed in their magazines can be obtained without having to type them by keyboard. Call 1-800-258-5473, or fill out their order form supplied in each magazine. The cost is \$17.95 per disk.

TANDY 2000 USERS:

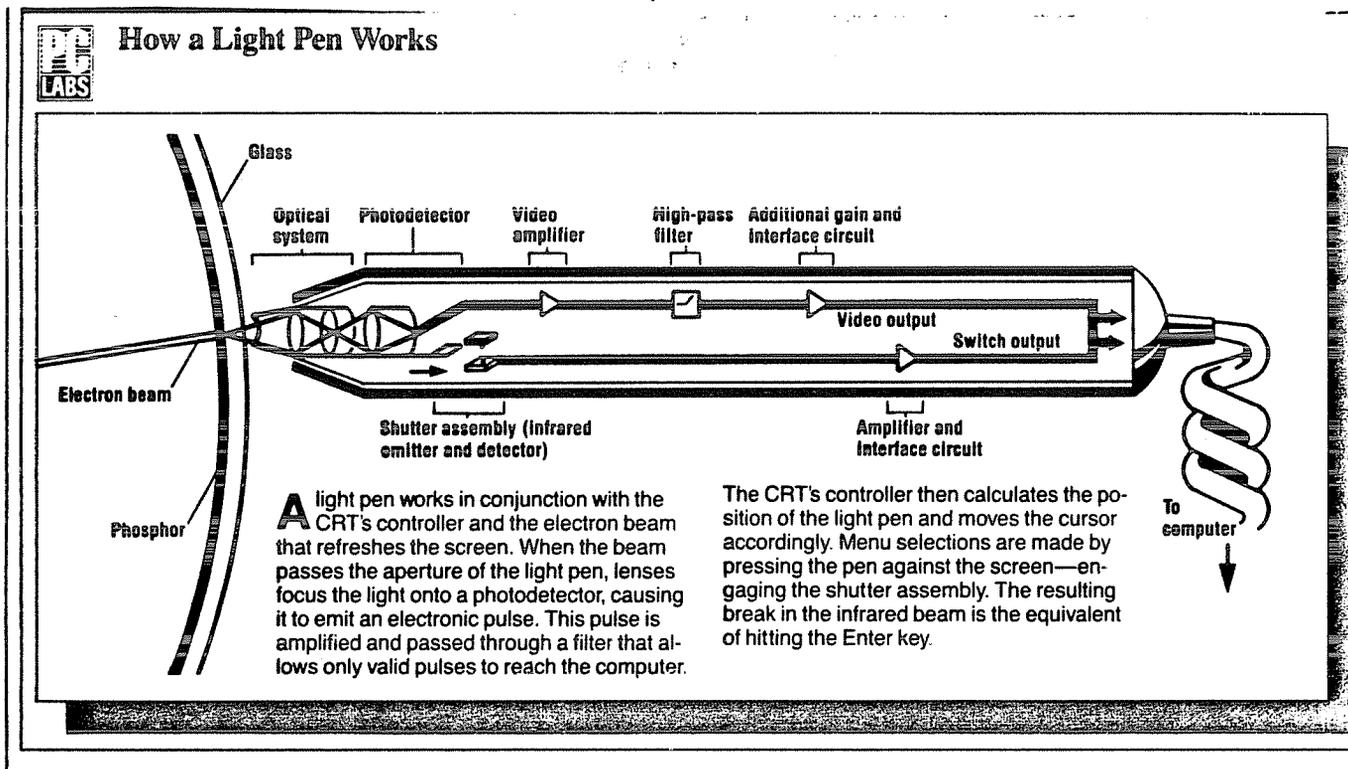
For those who need support, parts, etc., the following 2000 Owners Club can be helpful:

David R.  
387 Main St.  
Westport, CT. 06880

The Cost is \$10.00.

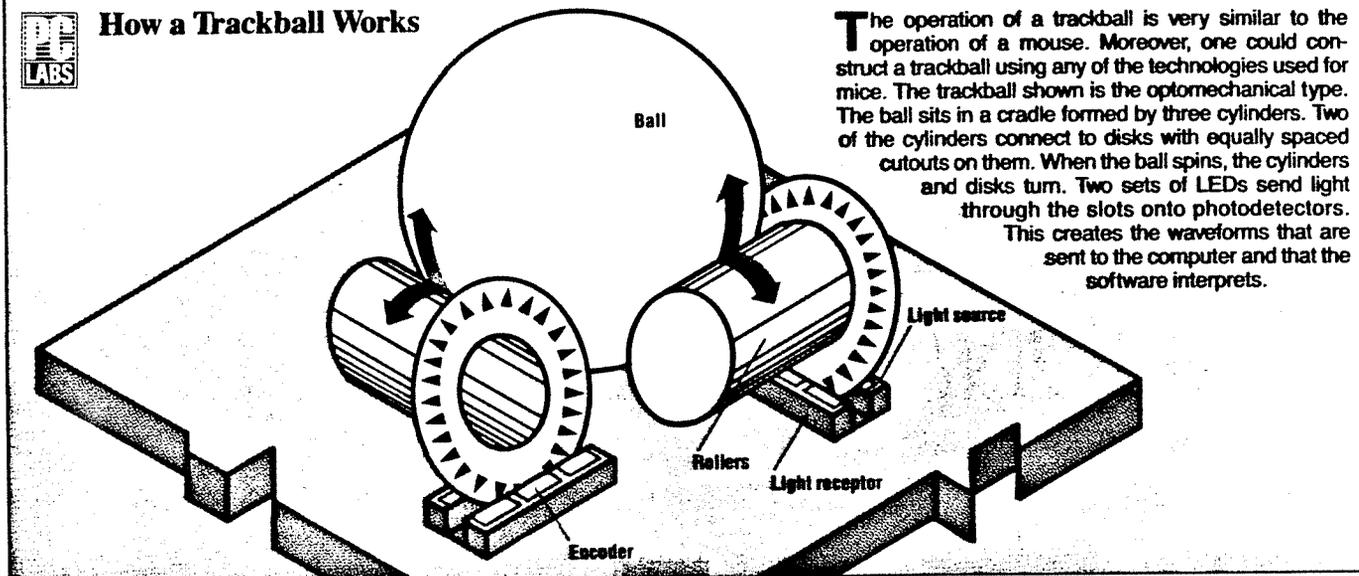
## INTERESTING FACTS ABOUT COMPUTER ACCESSORIES:

The following pictures are worth a thousand words. They explain how different computer accessories work without being technical. Look them over and you will get a good insight into how the various accessories work:





## How a Trackball Works



The operation of a trackball is very similar to the operation of a mouse. Moreover, one could construct a trackball using any of the technologies used for mice. The trackball shown is the optomechanical type. The ball sits in a cradle formed by three cylinders. Two of the cylinders connect to disks with equally spaced cutouts on them. When the ball spins, the cylinders and disks turn. Two sets of LEDs send light through the slots onto photodetectors. This creates the waveforms that are sent to the computer and that the software interprets.

### TRS-80 DOSes We Have Known

CP/M 2.2  
 CP/M 3.0  
 DBLDOS  
 Dosplus 3.4, 3.5, 4.0  
 LDOS 5.1, 5.2, 5.3  
 LS-DOS 6.3  
 Multidos  
 Newdos  
 Newdos/80 2.0  
 POS  
 Rapidos  
 TRSDOS 1.2, 1.3, 2.3, 2.0, 6.0, 6.2  
 Ultrados  
 VTOS  
 XDOS

### Companies Advertising in the First Issue of 80 Micro (January 1980) and Still in Business

Apparat  
 Compupro (now Viasyn)  
 Contract Services Association  
 Electronic Specialists Inc. (ESP)  
 H & E Computronics  
 Howe Software  
 Micro Systems Software  
 Miller Microcomputer Services  
 NRI Schools/McGraw-Hill  
 Tandy/Radio Shack

# TANDY Trivia

### When the TRS-80 Was King

The November 1982 issue of *80 Micro* had almost 360 advertisers and nearly 250 pages of ads. It also contained 54 articles, 19 columns and departments, and 14 reviews.

### Short-Lived Phenomena

**Electric Crayon and Chromatix:** Color for the Model I, but no software to take advantage of it.  
**Excalibur:** A Model III/4 add-on to run MS-DOS software.  
**MC-10:** Everything the Timex/Sinclair was and less, for three times the price.  
**Tandyvision:** Tandy's answer to Atari's game machines.  
**Tandy 10:** Tandy's first "big" business computer, but the biggest thing about it was its \$9,950 price tag.  
**TDP-100:** Tandy's attempt to market the Color Computer in non-Radio Shack stores.

### Defunct Tandy-Specific Magazines

III/4 \*  
 80 U.S./Basic Computing  
 The Alternate Source  
 Color Computer Magazine  
 Color Computer News  
 Color Micro Journal  
 Computer User  
 Eighty System Newsletter  
 H & E Computronics Magazine  
 HOT CoCo  
 PC Companion  
 Pocket Computer Newsletter  
 TRS-80 Microcomputer News  
 Two/Sixteen Magazine  
 Undercolor

\* Sent out promotional material, but was never actually published!

### The TRS-80 Clone Graveyard

Dick Smith System 80 (Australia)  
 Dragon by Tano (Color Computer)  
 LNW-80  
 Lobo Max-80  
 Phoenix  
 PMC-80  
 Video Genie (England)  
 TRZ-80 (Australia)

### Tandy-Specific Magazines Still Publishing

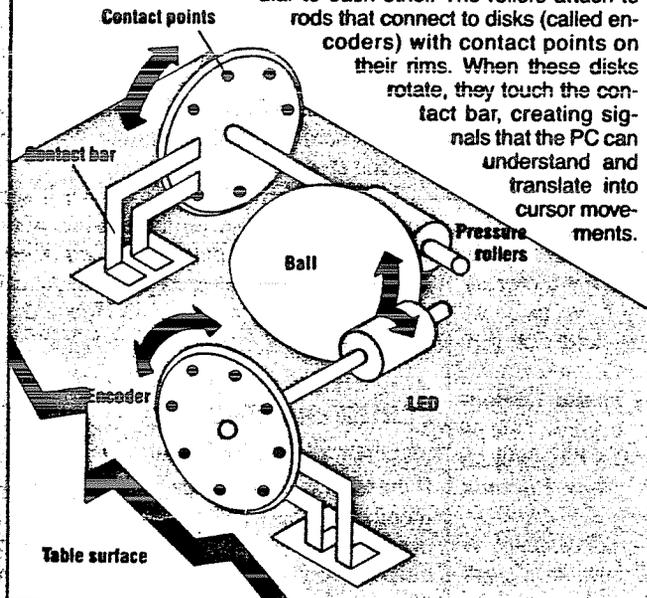
80 Micro  
 Misosys Quarterly  
 Northern Bytes  
 One-Thousand Magazine  
 PCM  
 Portable 100  
 Rainbow



## How a Mouse Works

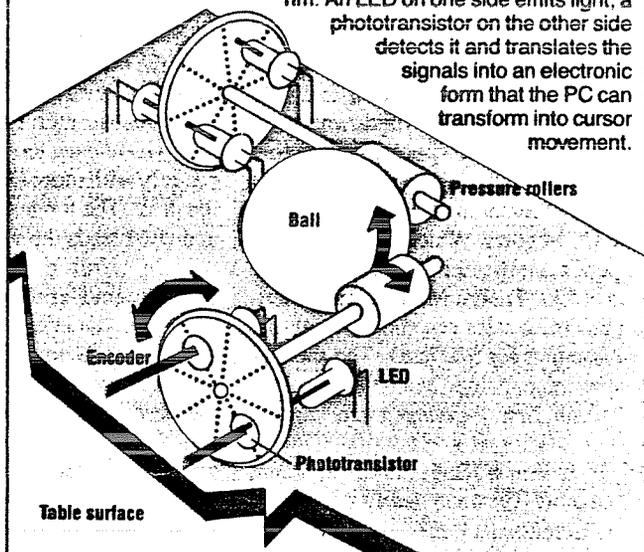
### MECHANICAL MOUSE

The mechanical mouse uses a roller ball. As you move the mouse, the ball turns pressure rollers, placed perpendicular to each other. The rollers attach to rods that connect to disks (called encoders) with contact points on their rims. When these disks rotate, they touch the contact bar, creating signals that the PC can understand and translate into cursor movements.



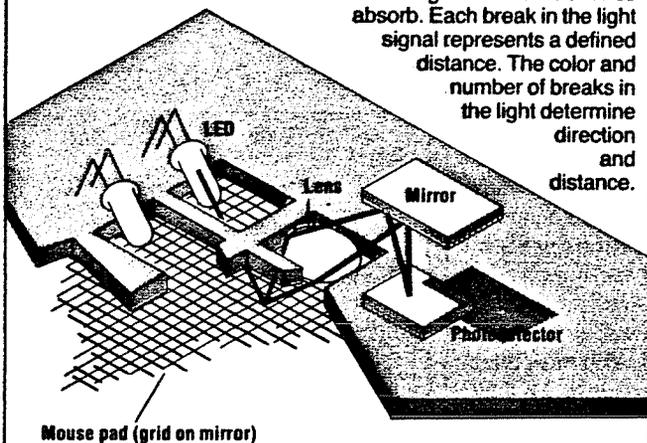
### OPTO-MECHANICAL MOUSE

The optomechanical mouse uses the same principles as the mechanical mouse but detects the motion of the encoder disks differently. The disks have evenly spaced slots cut out around the rim. An LED on one side emits light; a phototransistor on the other side detects it and translates the signals into an electronic form that the PC can transform into cursor movement.



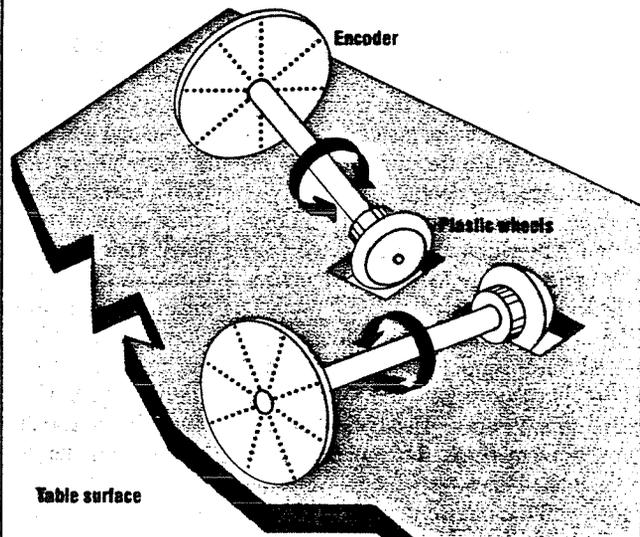
### OPTICAL MOUSE

The optical mouse uses a special pad with a reflective surface and grid lines to detect motion and transform it into cursor movement. Lines in one direction are blue, those in the other black. On the bottom of the mouse are two LEDs that emit light, and two phototransistors that receive the light bounced back. One LED emits red light that the blue lines absorb; the other produces infrared light that the black lines absorb. Each break in the light signal represents a defined distance. The color and number of breaks in the light determine direction and distance.



### WHEEL MOUSE

The two-wheel mouse operates in the same way as a mechanical mouse, except that a ball does not rotate against the table and pressure rollers; rather, the pressure rollers themselves are tilted down and exposed to the surface, passing motion directly to the encoder disks.

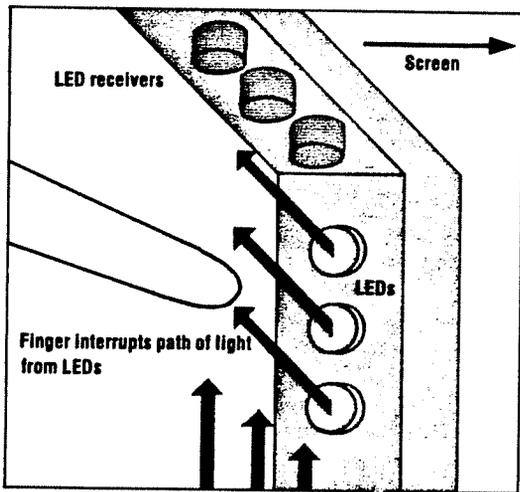
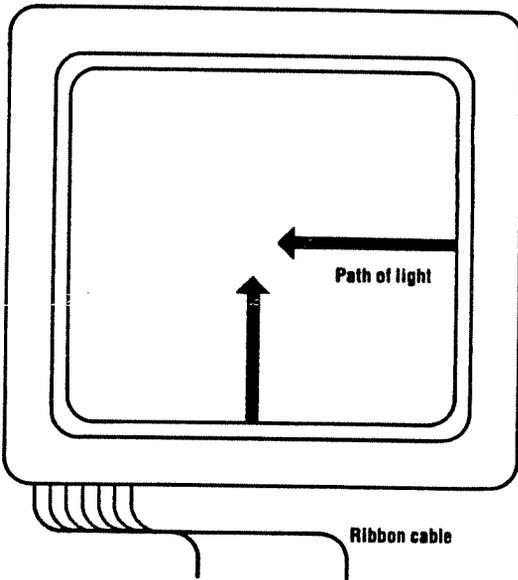




## How a Touch-screen Works

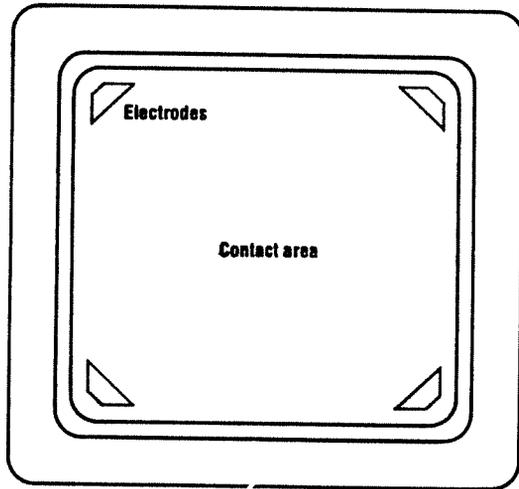
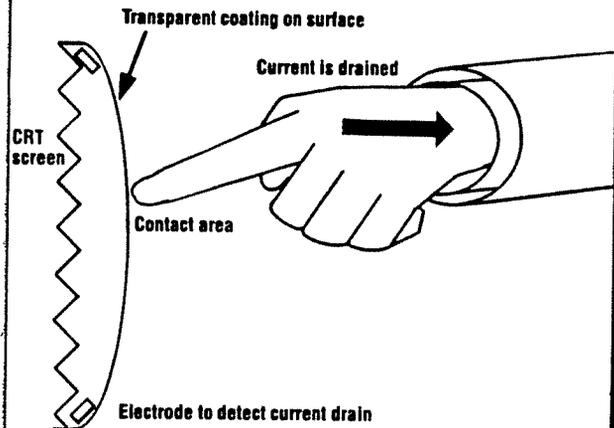
### LED TECHNOLOGY

A touch-screen that uses LED technology consists of a bezel fitted with two rows of LEDs—one along the left side and one along the top—placed over the face of the CRT. Opposite each row of LEDs are LED receivers. These LEDs create a matrix of infrared light beams. When your finger points at the screen, it breaks this matrix. The touch-screen electronics send the coordinates of the broken beams to the computer, which then calculates the position of the finger on the screen.



### CAPACITIVE TECHNOLOGY

Touch-screens that make use of capacitive technology have a transparent coating fused to the CRT screen that acts as one plate of a capacitor. When a finger touches the coating, it causes a current drain at the contact spot. Electrodes placed at the four corners of the screen detect changes in the current caused by the touch and determine the position of the finger on the screen.



# TANDY COMPUTER PRODUCTS

**CUSTOMER SERVICE BULLETIN**

**NO.**

2052-05

0086\*3785\*5  
 BYTE BANDITS OF AMERICA  
 TRS 80S COMPUTER CLUB  
 780 MANX AVE  
 CAMPBELL CA 95008

Description	XENIX Oper. Sys.
Model	16 V. 01.0X.0X
Stock No.	700-2052
Date	JUL 17, 1987

**\*\*\*\*\* PURPOSE \*\*\*\*\***

Our records indicate that you are a registered owner of the XENIX 01.0X.0X Operating System. A new version of XENIX is now available which incorporates changes and enhancements to the one which you are using. Among other things, you will notice a 30% increase of disk input/output speed and the addition of on-line help facilities.

**\*\*\*\*\* DISCUSSION \*\*\*\*\***

A hardware modification is also necessary to complete the upgrade. See the PROCEDURE section (below) for the details of arranging for this modification. Also note that a minimum of 512K memory is required to run this version of the operating system.

When you have fully upgraded your operating system and hardware, you will be using XENIX version 03.01.02 on a Tandy 6000. You will find complete documentation about the use of this new operating system and the changes that were made to XENIX 01.0X.0X with your new software manual. The cost of the 700-3031 upgrade is \$199 (U.S.) as advertised in the RSC-17B catalog. The cost of the 700-3036 upgrade is \$7.00 (U.S.). Contact your nearest Radio Shack Computer Center for the cost of the hardware upgrade.

Tandy Corporation has on-going research and development work occurring on current software products. While you may continue to use any prior version of XENIX, please be aware that until further notice, version 03.01.02 of this Operating System is the only one for which we will be developing any software fixes and/or enhancements. Also, our ability to provide functional information about previous versions of this software must necessarily be limited. Answers to questions about XENIX will be relative to the current version and may or may not be accurate for any previous versions.

**\*\*\*\*\* PROCEDURE \*\*\*\*\***

The upgrade will involve four steps:

1) Contact your local Radio Shack Computer Center or Participating Radio Shack Dealer and make arrangements for the two applicable software upgrades to be ordered for you (Catalog Number 700-3031 Version 03.01.00, and 700-3036 Version 03.01.02). Your Radio Shack Computer Center or Participating Dealer can advise you about the parts necessary to complete the hardware upgrade to the Tandy 6000.

2) When the 700-3031 kit arrives at the store, you will need to make an appointment to have your computer modified. The store should be able to give you an approximate time frame necessary to complete the upgrade procedure.

3) When you receive your modified computer and the 03.01.00 version of the XENIX operating system, you will need to follow the instructions very carefully for completing the software upgrade. This involves making two complete saves, reformatting the hard drive(s), installing the new operating system, and restoring the saved information.

4) After completing the upgrade to XENIX 03.01.00, it will be necessary to install 700-3036 to complete the upgrade to XENIX 03.01.02. Follow the simple instructions included with 700-3036 to complete your upgrade procedure.

Should you desire assistance, your local Radio Shack store or Participating Dealer can provide you with the name and phone number of the nearest Radio Shack Training and Support Center which will be happy to explain the terms and conditions under which they can provide you with this service.

4TH WED..MEETING..1987

JAN. DISK OPERATING SYSTEM-SYSTEMS

FEB. PROGRAMS TRANSFERING

MAR ELECTRICAL PROTECTION 110V

APR MODEM PROTOCOLS

MAY UPGRADING YOUR COMPUTER

JUN COMPUTER PREVENTIVE MAINT.

JUL PRINTERS-PROBLEMS ECT.

AUG BASIC PROGRAMING

SEP COMPUTER LANGUAGES

OCT COMPUTER ACCESSORIES ECT.

NOV CLUB REVIEW 1987

DEC NEW PRODUCTS- REVIEW

THIS MEETING IS A ROUND TABLE DISCUSSION OF THE SUBJECT OF THAT MONTH.... COME AND HELP THE DISCUSSION WITH YOUR KNOWLEDGE OR YOUR PROBLEMS.....

MEETINGS:

2ND SAT.....1PM WORKSHOP

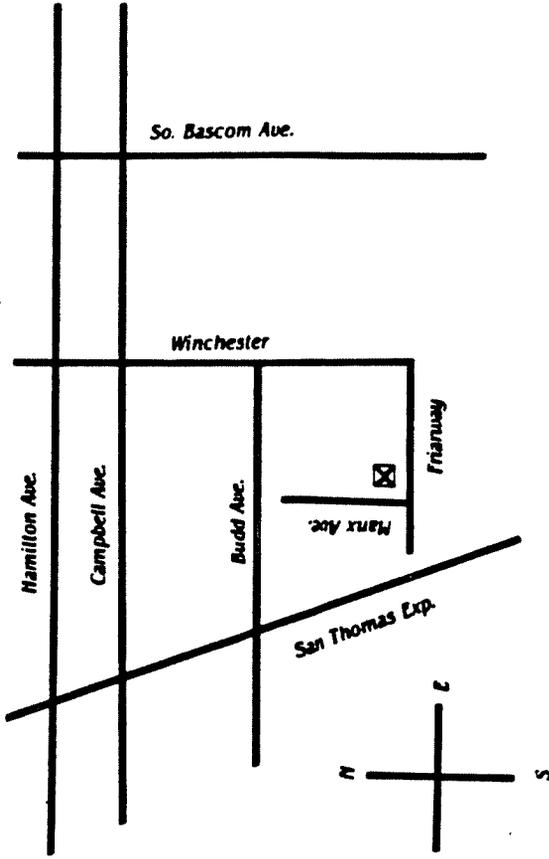
4TH WED.....7PM LECTURE

NOTES:

- 1. MEMBERSHIP REQUIRED
- 2. GUESTS..BY APPOINTMENT ONLY

INFORMATION...CALL 408-379-2774

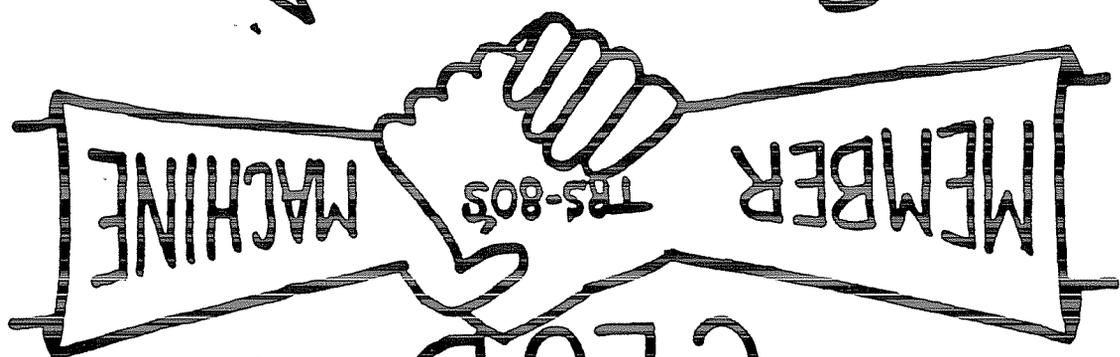
B.B.S.....CALL 408-374-3974



This club has been established to provide its members total computer knowledge using "hands-on" application during the meetings. For better understanding of existing hardware and software in an informal--social club atmosphere.

We hope to provide members close contact between novice and amateur home computer enthusiasts; young and old, male and female, school, home, business and hobbyist.

OF AMERICA  
5D BUCK 7/15/87



BYTE BANDITS CLUB

Byte Bandits of Amer.  
TRS-80's Computer Clb  
780 Marx Ave.  
Campbell, CA 95008

