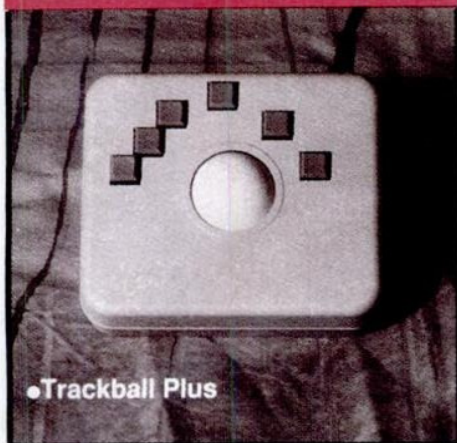# FULCRUM COMPUTER PRODUCTS CO.

•Trackball Plus

by Rink Murray

Fulcrum Computer Products' Trackball Plus is a six-button, cursor-control device that supports eight different emulations. And at $89, the Trackball Plus maintains the bargain status we gave it when it was last reviewed in our August 1987 issue ("Trackballs: Stationary Mice").

It also shows some of the same problems. First, it needs its own 120-volt power supply, so you'd better have an extra outlet handy and be willing to put up with yet another cable on your desk. And while the DOS-based installation procedure is simple in theory, the lack of clearly organized, step-by-step documentation makes it otherwise.

However, after your initial struggle, you'll find using the Trackball Plus to be a pleasant experience. In addition to the Microsoft Mouse emulation, the Trackball Plus emulates seven other devices, including a Summagraphics Bit-Pad digitizing tablet.

There are two ways to move from one mode to another. You can install drivers at the DOS prompt or, as long as you have the correct driver installed, simply press the 1, 2, 3, and 5 keys simultaneously, followed by the keys corresponding to the mode you desire.

The Trackball Plus' six buttons are la-

	Commax Inc. **Witty Ball** $78	Dell Computer Corp. **Dell Serial Mouse** $59.95	DFI Inc. **DMS-200 Mouse** $79.95	Electronic DFI Inc. **DMS-200H Mouse** $79.95	Focus Corp. **Focus FT-100 Tracker** $65	Fulcrum Computer Products Co. **Trackball Plus** $89	International IBM Corp. **IBM/PS/2 Mouse** $99	International Machine Control Systems **The MousePen** $129	International Machine Control Systems **The MousePen** $129	Microcomputer Software Inc. **IMSI Mouse** $99.95/$109.95*
	Trackball	Mouse	Mouse	Mouse	Trackball	Trackball	Mouse	Mouse	Mouse	Mouse
	Commax	Logitech	DFI	DFI	Focus	Fulcrum	Alps	IMCS	IMCS	Z-Nix
	Serial	Serial	Serial	Serial	Serial	Serial	PS/2	Serial	PS/2	Serial, bus
	0, 3, 7, 8	4	3, 4	3, 4	1, 2	1, 2	12	0, 3, 4	0, 3, 4	4
	300	200	200	200	160	100	200	100	100	250
	3	2	3	3	3	6	2	2	2	2
	Optomechanical	Optomechanical	Optomechanical	Optomechanical	Optomechanical	Optomechanical	Mechanical	Optomechanical	Optomechanical	Mechanical
	N/A	N/A	■	■	N/A	N/A	N/A	N/A	N/A	N/A
	❏	■	■	■	■	❏	■	■	■	■
	One year parts and labor	One year parts and labor	One year parts and labor	One year parts and labor	One year parts and labor	Six month parts and labor	One year parts and labor	Unconditonal one year parts and labor, lifetime afterward	Unconditonal one year parts and labor, lifetime afterward	Lifetime parts and labor
	62	72	71	71	59.5	48	108	118	118	69
	0.52	0.19	0.24	0.24	0.75	0.86	0.11	0.06	0.06	0.25
	N/A	14,336	15,657	15,657	817,152	11,120	N/A	10,960	10,496	10,544
	19,526	14,336	15,569	15,569	272,384	16,888	10,384	10,480	10,000	9,952
	5.25	5.25 and 3.5	5.25	5.25	5.14	5.25, 3.5	3.5	5.25, 3.5	5.25, 3.5	5.25
	4.1	3.43	3.0	3.0	1.02	6.24B	1.1	6.24A	6.24A	6.11
	■	■	❏	❏	■	■	❏	■	■	❏
	❏	❏	❏	■	■	■	❏	■	■	❏
	N/A	N/A	N/A	5	160	100	N/A	50	50	N/A
	N/A	N/A	N/A	700	500	25,000	N/A	1,000	1,000	N/A
	■	■	■	■	❏	■	❏	■	■	■
	Microsoft, Mouse Systems	Microsoft	Microsoft, Mouse Systems	Microsoft, Mouse Systems	Microsoft, Mouse Systems	Microsoft, Mouse Systems	❏	Microsoft	Microsoft	Microsoft
	■	■	■	■	■	■	■	■	■	■
	■	❏	■	■	■	■	■	■	■	■
	■	■	❏	❏	❏	❏	❏	❏	❏	❏
	■	■	❏	❏	❏	❏	❏	❏	❏	❏

CONTINUES

beled 1, 2, 3, 4, A, and 5. The A key functions as an Alternate Cursor key for use in CAD programs, allowing you to put two cursors on-screen. If you need to drag something across the screen simply push button 4, and the next button you press will lock until your next click.

Included with the Trackball Plus are two menuing programs. The first lets you create your own menu templates. The other nifty program is *Point-N-Shoot,* a memory-resident windowing program that makes keystroke commands virtually obsolete in many popular applications such as *Lotus 1-2-3*, *WordPerfect*, *dBASE,* and many more.

The Trackball Plus is an optomechani-cal device, so there are few breakable parts. Resolution is a modest 100 dpi, but scrolling is only the slightest bit jumpy.

The Trackball Plus is and has been a solid performer, but look for the new Fulcrum trackball due out about the same time as this article. With higher resolution and self-installation promised, this good thing will only get better.
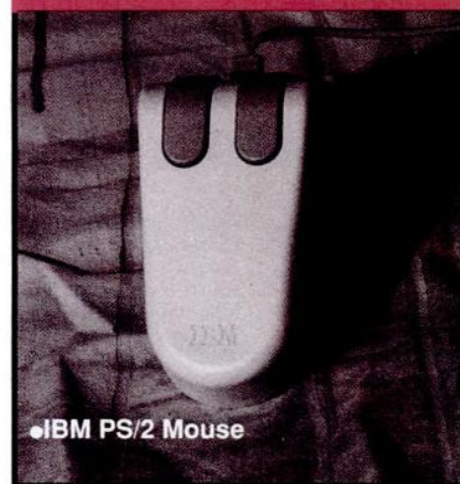
Trackball Plus
Fulcrum Computer Products Co., 459 Allan Ct., Healdsburg, CA 95448; (707) 433-0202.
List Price: $89.

IBM CORP.

•IBM PS/2 Mouse

MICE AND TRACKBALLS: SUMMARY OF FEATURES

Products listed in alphabetical order by company name

	ITAC Systems Inc. **Mouse-Trak**	ITAC Systems Inc. **Mouse-Trak**	Kensington Microware Ltd. **Kensington Expert Mouse**	Key Tronic Corp. **Key Tronic Professional Series Mouse**	Kraft Systems Inc. **Kraft Trackball**	KYE International Corp. **Genius Mouse GM-6X**	KYE International Corp. **Genius Mouse GM-6000**	KYE International Corp. **Genius Mouse GM-F302/F303**
List price	$169/$195*	$179/$199*	$169.95	$109	$129.95	$49	$79	$99/$109*
HARDWARE FEATURES								
Type of device	Trackball	Trackball	Trackball	Mouse	Trackball	Mouse	Mouse	Mouse
Manufacturer	ITAC Systems	ITAC Systems	Kensington Microware	Key Tronic	Kraft Systems	KYE International	KYE International	KYE International
Interfaces supported	Serial, bus PS/2, InPort	Serial, bus PS/2, InPort	PS/2	Serial, bus	Serial	Serial	Serial	Serial, PS/2
IRQs supported	3, 4, 5, 7, 10, 11, 12, 15	3, 4	2, 3, 4, 5, 7, 10, 11, 12, 15	2, 3, 4, 5	3, 4	1, 2, 3, 4, 5	1, 2, 3, 4, 5	1, 2, 3, 4, 5
Base (hardware) resolution (ppi)	200	200	200	200	200	200	350	350
Number of buttons	2	3	2	2	3	3	3	3
Position sensor used	Optomechanical	Optomechanical	Optomechanical	Mechanical	Optomechanical	Optomechanical	Optomechanical	Optomechanical
Mouse pad included	N/A	N/A	N/A	❑	N/A	❑	■	■
Ball removable for cleaning	■	■	■	■	■	■	■	■
Warranty	One year parts and labor	One year parts and labor	One year parts and labor	One year limited	Five year parts and labor	Lifetime parts and labor	Lifetime parts and labor	Lifetime parts and labor
Cord length (inches)	60	60	72	58	96	70	71	70
Weight of device only (lbs.)	0.94	0.94	0.89	0.32	0.75	0.26	0.26	0.87
SOFTWARE FEATURES								
Number of bytes in CONFIG.SYS device driver	11,000	11,000	15,392	10,688	11,887	N/A	13,083	13,659
Number of bytes in command line driver	10,000	10,000	20,894	10,224	13,525	12,649	13,664	13,664
Disk format of supplied driver	5.25	5.25	5.25, 3.5	5.25	5.25	5.25	5.25	5.25
Version of tested driver	6.11	6.11	2.03	1.1	1.06	8.20	9.03	9.03
Driver can be uninstalled from DOS	■	■	■	❑	■	■	■	■
Ballistic tracking supported	■ (bus only)	■ (bus only)	■	❑	❑	■	■	■
Minimum resolution supported	20	20	20	N/A	10**	50	87.5	87.5
Maximum resolution supported	800	800	10,000	N/A	1,150**	800	1,400	1,400
Driver upgrades available	■	■	■	■	■	■	■	■
Other mouse emulations included	Microsoft, Mouse Systems	Microsoft, Mouse Systems	Microsoft, IBM PS/2	Microsoft	❑	Microsoft, Mouse Systems	Microsoft, Mouse Systems	Microsoft, Mouse Systems
Supports Microsoft Mouse driver in *Microsoft Windows*	■	■	■	■	■	■	■	■
Mouse driver supports interrupt 33	■	■	■	■	■	■	■	■
Driver for *Microsoft Windows* included	❑	❑	■	❑	❑	❑	❑	❑
Driver for *AutoCAD* included	❑	❑	❑	❑	■	❑	❑	❑

PC—Editor's Choice   ■—Yes   ❑—No
N/A—Not applicable: the product does not have this feature.
*Where two list prices are given, the first is a serial, PS/2, or InPort version. The second is the bus version except in the case of the Genius Mouse GM-F302/F303 and the Series 9 mouse, whose prices are clarified in the fact files.
**The product features adjustable resolution, but not ballistic tracking.