

# Dip switch settings of trackballs

Ver. 1.4

All NSI trackball series and all NSI keyboards with integrated trackball are using trackball modules which are labelled as :

**PXX-xXXXXX**  
**OXX-xXXXXX**  
**LXX-xXXXXX**

X : denotes the output protocol  
 denotes ball diameter in mm

0 = Phase quadrature output  
 4 = "PS/2 only" output  
 5 = "USB only" output  
 6 = "Combo PS/2 & USB" output  
 A = "RS232 only" output

**Current range (identified by the label XXX on the IC of the motherboard of the trackball, f.i. 199)**

## COMBO protocol types (PS/2 & USB) Partnumber P50-x6xxxx, P75-x6xxxx and P25-x6xxxx

Dip Switch	Function	OFF	ON
1	Orientation 1	See orientation table	
2	Orientation 2		
3	VX3 - Virtual 3 Axis	Feature enabled	Feature disabled
4	Smart feature	Feature enabled	Feature disabled
	Double track.(P75)	Feature enabled	Feature disabled
5	Y inverted	Feature disabled	Feature enabled
6	-	X	-
7	-	X	-
8	-	X	-

X : Dip switch must be in this position

Orientation table for P50-x6xxxx, P75-x6xxxx and P25-x6xxxx

Y+ X+	Orientation 2 ON	Orientation 2 OFF
Orientation 1 ON		
Orientation 1 OFF		

## USB protocol types Partnumber P38-x5xxxx, P38-x6xxxx

Dip Switch	Function	OFF	ON
1	Orientation 1	See orientation table	
2	Orientation 2		
3	VX3 - Virtual 3 Axis	Feature enabled	Feature disabled
4	Smart feature	Feature enabled	Feature disabled

X : Dip switch must be in this position

Orientation table for P38-x5xxxx

Y+ X+	Orientation 2 ON	Orientation 2 OFF
Orientation 1 ON		
Orientation 1 OFF		

## PS/2 protocol types Partnumber P38-x4xxxx-5257

Dip Switch	Function	OFF	ON
1	Orientation 1	See orientation table	
2	-		
3	VX3 - Virtual 3 Axis	Feature enabled	Feature disabled
4	Orientation 2	See orientation table	

X : Dip switch must be in this position

Orientation table for P38-x4xxxx-5257

Y+ X+	Orientation 2 ON	Orientation 2 OFF
Orientation 1 ON		
Orientation 1 OFF		



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## SERIAL protocol types Partnumber P38-xAxxxx and P50-xAxxxx

1	Protocol mode	Microsoft RS232	Mouse systems
2	Orientation 1	See orientation table	
3	Orientation 2		
4	Tracking mode	Ballistic	Linear
5	Virtual 3 axis*	Feature Disabled	Feature enabled
	Baud rate selection*	1200	9600
6	Smart feature	Feature Disabled	Feature enabled
7	-	X	-
8	Output level	Std. RS232	TTL

X : Dip switch must be in this position

\* Microsoft mode: VX3  
 Mouse system: Baud rate selection

Orientation table for P38-xAxxxx and P50-xAxxxx

Y+ X+	Orientation 2 ON	Orientation 2 OFF
Orientation 1 ON		
Orientation 1 OFF		

## New range (identified by the label XXXXX on the IC of the motherboard of the trackball, f.i. LC602A)

## COMBO protocol types (PS/2 & USB) Partnumber P50-x6xxxx , O50-x6xxxx and P38-x6xxxx

Dip Switch		OFF	ON
1	Orientation 1	See orientation table	
2	Orientation 2		
3	VX3 - Virtual 3 Axis	Feature disabled	Feature enabled
4	Smart feature	Feature disabled	Feature enabled
5	Tracking mode	Ballistic	Linear
6	-	X	-
7	-	X	-
8	-	X	-

X : Dip switch must be in this position

Orientation table for P50-x6xxxx, O50-x6xxxx and P38-x6xxxx

Y+ X+	Orientation 2 ON	Orientation 2 OFF
Orientation 1 ON		
Orientation 1 OFF		

### VX3™

VX3 is patent protected facility that provides the same 2 modes of functionality as a scroll wheel on a 3-axis mouse.

Operation:

- Press middle button once to latch scroll mode one (e.g. dynamic pan feature);
- Press middle button again to latch scroll mode two (e.g. 3<sup>rd</sup> axis zoom feature);
- Further middle button presses toggles between scroll mode one and scroll mode two;
- Press either left or right buttons to cancel feature and resume normal X-Y cursor operation

### Smart Switch

A patent protected button latch facility.

- Press right button for 3 seconds or more to enable;
- Once enabled, pressing any button for approximately 1 second latches that button on;
- Press any button momentarily to de-latch;
- Disabled with a further press of the right button for 3 seconds or more;

### Tracking Mode

**Ballistic Tracking:** Intuitive tracking algorithm to provide increased cursor resolution when tracking fast whilst retaining the original resolution for tracking accurately at slow speeds.

**Linear Tracking:** No tracking algorithm. 620 counts per ball revolution maintained at all tracking speeds.



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