

## Black & White Test

LF0816A

Numerous behavioural paradigms using several conflict procedures, social interaction or exploration of novel environments have been proposed as animal anxiety models. B. Costall et al have described (Pharmacol. Biochem. Behav. 32(3): 777-785, 1989) a new model based on the aversive properties of the open field and in which anxiolytic drug-induced ease of exploratory activity is compared between a clear compartment and a dark one.

This model permits simple and quick evaluation of the anxious behaviour and its modification by pharmacological agents. Panlab s.l. has developed a complete system to carry out this experiment, including both cages for the experimental subjects and the appropriate control instrumentation.



### Cages

The cages are composed by two compartments with walls 24 cm high: one smaller, coloured matt black and the other, bigger, matt white.

Both compartments are separated by a higher wall (to act as light separator) with an opening to permit the animal pass from one side to the other. This wall also supports the illumination system: in the white side a 100 W white bulb and in the black side a 40 W red bulb.

The two floors are easily removable, constructed with Perspex of the same colour of the respective walls and are marked in 9 sectors by lines.

The cages do not count with a top cover.

## Dimensions

Model	Animal	Compartments		Shared Wall	Opening
		Black	White		
LE 810 LE 816*	Mouse	16 x 25 x 24	25 x 25 x 24	47 x 25	7 x 7
LE 812 LE 818*	Rat	20 x 31 24	31 x 31 x 24	56 x 31	10 x 10

\* The LE 816 and LE 818 models are equipped with weight sensors to detect animal position. This system guaranties a full reliability, avoiding the classical problems of the photo beam methods.

Besides, in both models the white compartment has 4 photocells and the black compartment 3. Thus allowing a record of the activity in each side.

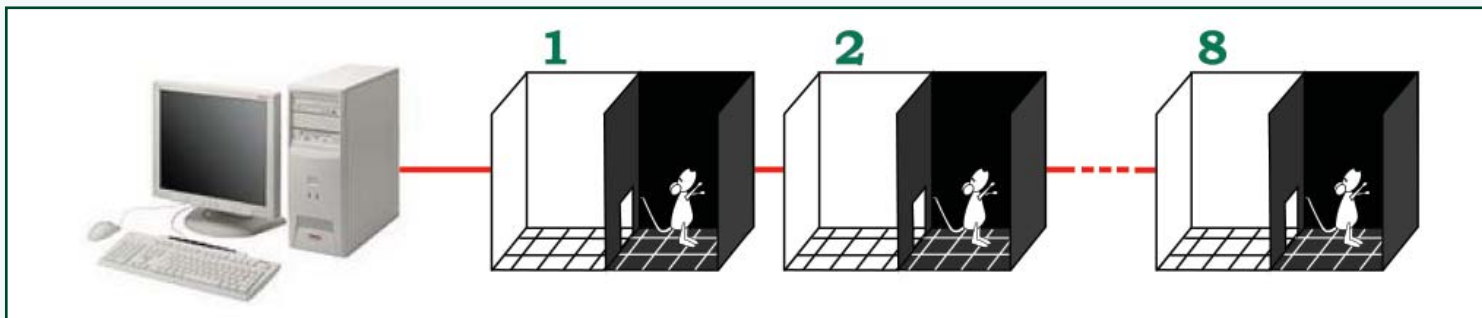
These two models of cages are controlled by the PPCWIN Software.

## PPCWIN

The PPCWIN Software can control from one up to eight cages. It is not necessary the use of any device as interface, since the link is made by serial way and RS232 port (USB)

The Software has the following characteristics:

- Windows Platform: Millenium-NT-2000 and XP
- Length trial selected and Start/Stop separately for each Cage
- Total time spent in each compartment, for trial
- The number of transitions between the two areas
- The latency of the first transition (initial position)
- The number of line crossing in the two compartments (activity)
- Once a trial is over, ASCII files containing all the above information are generated.



							Entries				Permanence			
							Total		% Total		Total		% Total	
Session	Date	Box	Subject	Group	Duration	White	Black	White	Black	White	Black	White	Black	
S1	20/07/2005 8:03:33	BOX 1	SUB 1	G1	0:01:15	1	2	20	40	0:00:20	0:00:27	26,67	36	
S2	20/07/2005 8:03:50	BOX 3	SUB 3	G2	0:01:15	4	2	40	20	0:00:19	0:00:38	25,33	50,67	
S3	20/07/2005 8:03:40	BOX 2	SUB 2	G1	0:01:45	5	2	45,45	18,18	0:00:43	0:00:31	40,95	29,52	
S4	20/07/2005 12:00:40	BOX 1	AAA		0:00:02	0	0	0	0	0:00:00	0:00:00	0	0	

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