

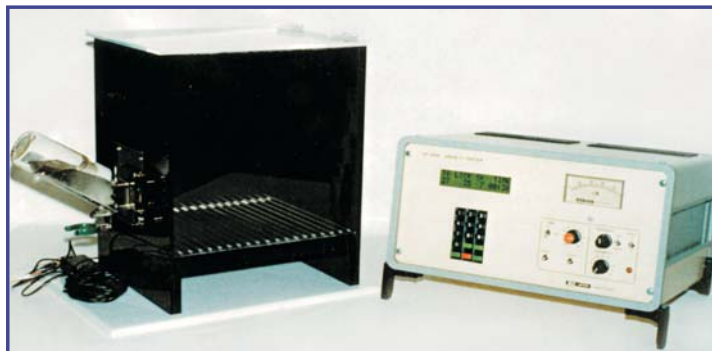
Vogel's Test

Many different animal models have been developed for testing the effects of anti-anxiety drugs on behaviour. The most frequently used behavioural action is the anxiolytic ability to increase response rates suppressed by delivery of response-dependant punishment.

One of the most popular versions of this technical approach is that developed by R.A. Vogel in 1971 (Psychopharm. (Berl.), 21:1-7). In this model, licking of drinking tube suppression in water-deprived rats, is reestablished by anxiolytic pretreatment. As the model can be used with naive rats in one test session, it has become a standard for fast screening of anxiolytic activity of drugs.

Letica, S.A. -Scientific instruments- has developed a fully automated set up fulfilling all the control needs of the Vogel's Test, and allowing test performance in a single and easy to use experimental unit.

The set-up is formed by the animal cage, and a modular control unit that include a shock generator.



The animal cage

The animal cage is made up of black perspex (275 x 240 x 280h mm) with an upper access doors and an electrificable grid floor (stainless steel bars, 4 mm dia., spaced 10 mm); frontal panel & upper door is made of transparent perspex. The drinking tube is installed in one of the box sides; it is provided with a resistive detector for animal approaches to water and allows measuring of water consumption and water loss.

Lick detection is established through the drinking water (80 ml), in such a way that only the consummatory behaviour is intended to be a response (this system has proved to be much more reliable than others, based on animal contact with the drinking tube, in which false responses due to contacts with the drinking tube without drink are possible).

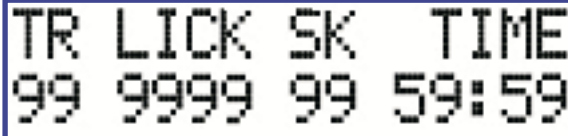
Ordering information

<i>Reference</i>	<i>Code</i>	<i>Description</i>
LE 3200	1410-201	Complete single animal testing unit (LE 860 Animal habitacle, LE 300-70 Resistive Lick detector & LE 3206 Control Unit)
LE 860	1410-101	Animal Habitacle w/lick detector
LE 300-70	1112-405	Resistive Lick Detector

The LE 3206 Control Unit

The LE 3206 Control Unit provide full control over all the parameters necessities to carry out the Vogel's test, including those related with shock administration through a built-in shock generator.

The LE 3206 is a microprocessor based instrument, with a 2 x 20 characters LCD and a mixed numeric & functions keyboard. Selecting the appropriate option in the controlling "menú", it is possible to define the number of licks to be reached before a shock is given (up to 9999) and the total length of the experimental session (59:59 mm:ss).



Once a START key is pressed, a new trial begins, with the parameters currently defined. Licks and shock counters and session timer are reset; the licks counter is increased with each new lick until reaching the pre-defined lick/shock ratio. A shock is then activated (intensity and duration must be selected separately using the appropriate controls) and the shock counter increased. The session ends once the pre-programmed length time is reached (see below).

Up to 99 trials can be stored permanently in the LE 3206 Control Unit and reviewed using the up/down arrow keys. In each trial, total number of licks and shock received during the session are available.

Additionally, responses (licks) and reinforcements (shock) are presented in back connectors, allowing for the use of the LE 6306 Cumulative Recorder.

In the shock controlling section, the shock parameters can be set. Shock duration (from 0.1 to 10 s), intensity (from 0 to 2 mA) and the electronic scrambler velocity (on six poles) can be set through the frontal controls. The shock is delivered either manually or when an external start signal is provided by the control unit.