"ATLANTIS" PLATFORMS

for WATER MAZE experiments

Cat. No. 40100-40400

LIFTING CONTROL

LOWERING CONTROL

NO ELECTRICITY

NO HANDS IN THE POOL !

Why Automated Platforms?

Despite being very effective, the **Morris Water Maze** task has some limitations, related to the platforms normally used having fixed height, which cannot be raised during probe tests. Probe tests run with the use of a **lift platform** give more reliable indications on the presence of true **spatial learning**.

The Ugo Basile Atlantis Platforms are made of clear Perspex and are operated by hydraulic pressure. No electricity is present inside the pool; the electrical parts of the mechanism (i.e. the electro-hydraulic actuators) are safely located outside.

Main Features

- 4 Platforms with one Controller

- Remote lifting/lowering control

- Manually or PC-Operated

- Consistency of positioning in the 4 quadrants

- No more hands in the pool!

- No Electricity in the pool

Ugo Basile: more than 25,000 citations

System Description

Up to **4 platform/motor combination** connect to the 4-channel control unit.

Each platform is **driven independently**, so that the Water Maze experiment can be completely automated by positioning a platform in each of the 4 quadrants of the pool.

Once the 4 platforms have been positioned in the pool, each is connected to the related external motor, via the connectors conveniently fitted to the water tank (*ask for information about our models!*); the whole experiment can then be run automatically, via the control unit or external triggers.

Specifications

- 4 independent channels :   manual or TTL mode
- Platform vertical range :   25-35cm
- Vertical travel :   10cm, in 9 steps
- Platform Speed :   10mm/s
- Platform diameter :   10cm

Manual or Automated Modes

The platforms go up and down in steps of 1 cm, for a total vertical travel of 10 cm.

Different operation modes are possible using Ugo Basile Atlantis platform system: in the **manual** mode the vertical travel is controlled by simply depressing a key.

In the **automated mode** the platforms can be operated by external triggers (**TTLs**), controlled by any videotracking software.

Each platform can be kept submerged, and raised automatically when the animal swims above it. This protocol allows one to exclude from the test "navigation strategies" in which spatial memory is not involved.

plaftorm up →

↓ platform down

When used as stand-alone tool, without motor/controller, the Atlantis hydraulic **platform 40101-002** can also conveniently replace standard fixed platforms.

Ordering Information

		40100	40400
40100	**Complete 1-Platform System**, including standard components as listed below		
40400	**Complete 1-Platform System**, including standard components as listed below		
40100-001	4-Channel Controller	1	1
40101-002	Platform	1	4
40101-003	Motor	1	4
40101-320	Connection Cable	1	4
40101-321	100ml Syringe	1	4
40101-322	Stretch of Tube (3m)	1	4
40100-302	Instruction Manual	1	1
E-WP 008	Mains Cable	1	1

Available Accessories

40101   Additional platform and motor assembly

Ask for information about our Water Mazes and ANY-maze videotracking software

Physical		40100	40400
Weight	Kg	11	30
Shipping Weight	Kg	17	39
Packing	cm	80x60x44 (x2)	

Bibliography

- D. Ryan et alia: "Spatial Learning Impairments in Plb1triple Knock-In Alzheimer Mice are Task-Specific and Age-Dependent" Cellular and molecular life sciences 70(14): 2603-2619, 2013

- R.I.W. Spooner et al.: "The Atlantis Platform: A New Design and Further Developments of Buresova's On-demand Platform for the Water Maze" Learn. Mem. 1: 203-211, 1994

- G. Riedel et al.: "Reversible Neural Inactivation Re¬veals Hippocampal Participation in Several Memo¬ry processes" Nature Neurosc. 2 (10): 898-905, 1999

- I.Q. Wihshaw et al.: "The Behavior of the Laborato¬ry Rat: A Handbook with Tests" Oxford Univ. Press, USA: 1, 2004