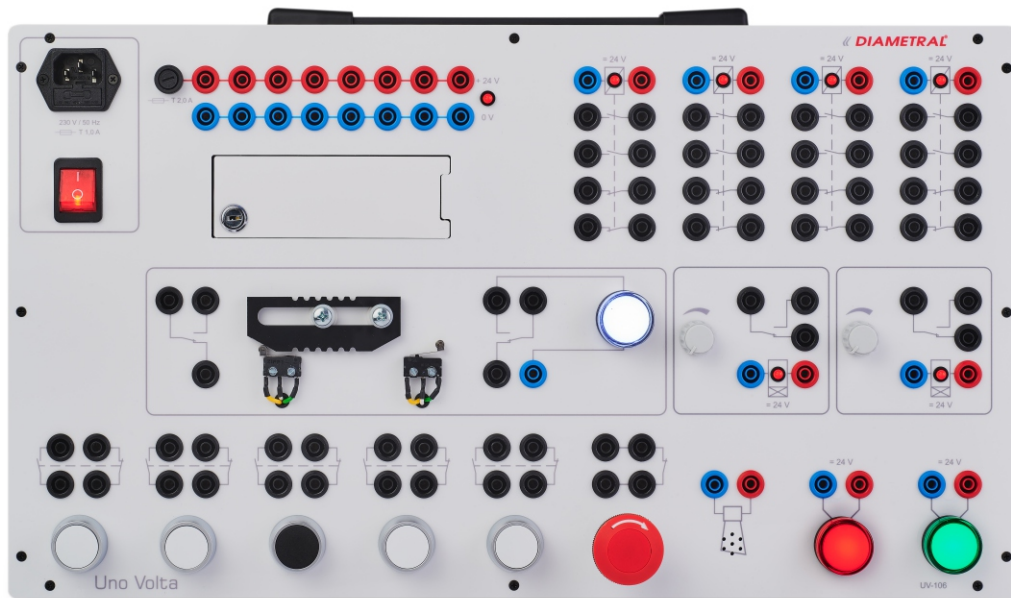


## Tutorial Panels Uno Volta

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### Description and Purpose of Tutorial Panels Uno Volta

Tutorial panels Uno Volta are used for teaching wiring and measurement of circuits, as well as experiments of wide range of applications from many fields of electrical engineering and electronics. Basically, these are autonomous panels and each panel is focused on a particular issue. Nevertheless, the individual panels can complement each other and thus form a wider connection. The Uno Volta panels are focused on practicing the principles of connecting, inventing the right connections and detecting circuit failures. They are therefore not designed for a physical connection of wires based on a real practice. For this purpose, the tutorial system is intended.



The individual Uno Volta panels offer not only wiring of standard home socket and lighting circuits, but also house wiring with EIB / KNX, or Inels. Other panels include contactor combinations and controls for electrical turntable circuits, both single-phase and three-phase. Other panels demonstrate the function of home console, security systems, or feature and connection of data and telephone networks. Uno Volta panels complement electric motors in a wide range of designs. Students can learn about the connection and potential failures of DC motor, single-phase and three-phase motors.

The power supply of the Uno Volta panels is mostly supplied with 230 V / 50 Hz from the mains via conventional power plug. The panel itself always contains certain electrical devices that are related to the problem. All inputs and outputs of all devices are plugged into the safety inlets and for security reasons all cords must be made with safety pins designed for a voltage of at least 230 VAC Cat II.

In addition, some panels are equipped with a fault simulator which the teacher can activate by switches that are hidden beneath the lockable door. Thus, learning is getting a further dimension when students have to not only properly integrate the circuit, but also detect any malfunction of any of the devices.

The Uno Volta panels are designed to be durable and to withstand a long-time usage during demanding operation of the school from electrical and mechanical points of view without any defects or damage. On the bottom side, they are fitted with rubber legs, so they can be operated in a horizontal position, simply laid on the school desk. If the workpiece is equipped with tables or perforated work-plates, the Uno Volta panels can be hung on them with the supplied hooks. The circuit connection in the vertical position simulates the real environment even better.

# Tutorial Fields Uno Volta

- Light sources and their comparison
- Socket circuits and faults in them
- Home electrical wiring
- Data and telephone wiring
- Intelligent building control
- Security technology
- Data transmission
- DC and AC electrical motors management
- Simulation of faults in wiring
- PLC control systems

## Safety First

Students' safety is more than important when teaching electrical connections. All Uno Volta panels are for this purpose equipped with safety sockets to prevent the student from accidental contact with the live part of the connector. The cords equipped with safety pins only are used to connect circuits. Modules that are powered by removable flexo intake are equipped with a warning light indicator that illuminates with a warning symbol when using an incorrect flexo intake.

## Way of Teaching

- The teacher enters the text of the task and checks if the panel is not connected to the power supply (we recommend that all the sockets are under a remote power control, for example through the secured teacher's desk).
- Students connect the electrical circuits as required. If they think that the connection is correct, they tell it to the teacher and he checks their job.
- The teacher allows students to turn on the power supply of the checked panel that students can practically verify the correctness of the connection.
- After testing the task and completing the experiments with the circuit, the teacher disconnects the power supply to the panel.
- If the panel is securely disconnected from the power supply, the students disconnect all the connecting wires and store them in the designated location.

## Contacts

Diametral Plc  
Vaclava Spacka 1759  
193 00 Prague 9 - Horní Počernice  
European Union - Czech republic  
+420 222 360 423  
variolab@diametral.cz

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