



### **PRESENTATION :**

The MT-4002V training simulator is a training aid tool aimed to study the 12V start-up charge automotive circuit.

Freestanding aluminium frame with several display boards:

- A set of real elements: alternator, starter motor, battery...
- An Alternator starter motor board with sockets for measuring.
- A consumers management board.
- A pre- and post-heating Renault type board with sockets for measuring.

The MT-4002V training simulator comes with a start-up charge controller, the MI250, a professional tool which is well-spread in workshops.

Access to the back so as to be able to simulate breakdown situations.



### **OBJECTIVES:**

- Learn about the start-up charge circuit set.
- Observe, analyse and understand the operation of all components in the system.
- Reading and understanding diagrams.
- Measuring signals at the in and out ends of different components.
- Simulating breakdown situations for studying diagnosis methodology.
- Observe and analyse the flow rate in Amperes of an alternator depending on its speed.

#### **TYPES CONCERNED**

BACPRO M.V.A.  
BAC ST1 – Option motorized systems.  
BTS M.A.V.A.  
BTS M.C.I.

#### **PRACTICAL AND CORRECTED PROJECTS**

Resource book to instruct and learn about how the DT4002V training simulator operates.

## FEATURES :

An aluminium frame with a 230V cable for connecting the variator and electric engine to the power supply.

### A power section:

- Belt-driven alternator of variable speed.
- Starter motor
- Battery main switch and battery.

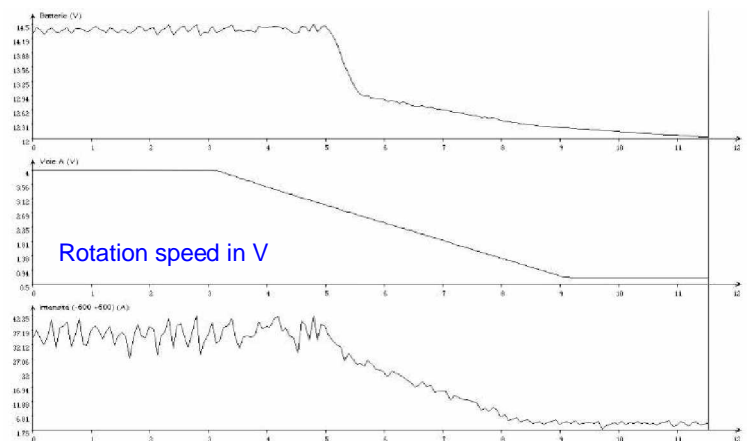
### An alternator starter motor board:

- Diagram of starter motor and alternator (with measuring sockets and electrical bridges by cables attached to the front or back of the training simulator).
- Study of mono-function (Renault type) or multifunction (Peugeot type) regulators on the alternator section. Choice made by using a switch.
- Key ignition switch.



### A consumers management training simulator:

- Several consumers for setting the alternator in charging position, creating leakage currents,...
- On / off switch for the electric engine with variator.
- Potentiometer for the change of speed of the electric motor.
- Sockets of outgoing voltage depending on the speed of the electric engine for post treatment.






Operation curves recorded with REFLET

### A pre- and post-heating training board:

- Diagram of pre- and post-heating box with measuring sockets on both in and out ways.
- Switch to apply voltage,
- Potentiometers for adjusting both water and air temperature, the position of the accelerator pedal.
- Consumption of glow plugs (same as in reality).

Access to the back so as to be able to simulate breakdown situations on both the alternator and starter motor training boards.

References	Functions	Connection	Accessories
 <b>MT-4002V</b>	12V start-up charge circuit training simulator with variator and pre- / post- heating.	230V power supply. One 12V battery (not provided)	MI250 Instruction booklet Training notebook
 <b>MT-4002RV</b>	Same as MT-4002V with mono function and multi-function regulators for training.	230V power supply. One 12V battery (not provided)	MI250 Instruction booklet Training notebook
 <b>MT-TABLE</b>	Optional table on caster wheels for both MT-4002V and MT-4002RV training boards.	None	None Table to be assembled

Find all EXXOTEST products on the Internet at: [WWW.exxotest.com](http://WWW.exxotest.com)

This material is EC certified. It is supplied with a certificate of verification and a declaration of conformity.

**GUARANTEE : 2 years parts and labour**

**ANNECY ELECTRONIQUE**

Z.A. Les Marais – BP157 – F74410 ST JORIOZ

Tel : 04 50 68 90 65 Fax : 04 50 68 58 93