

The EXXOTEST® DT-C005 model is a teaching support that allows observation and evaluation of stepping motors which are used for the vehicle real elements.



OBJECTIVES

- Analyze of stepping motors functionality and its command signals.
- Electrical schemas studying.
- Analyze of electrical circuit.
- Using of special measuring instruments adapted for the signals.
- Analyze of stepping motors command signals and identification of their origin.

DESIGN

This model is equipped with an aluminum box that is covered by an instrument desk with real automotive components and measuring inputs terminals. It includes: an idling actuator, a cabin air recycling motor, a motor of front lamps height adjustment, and control panel for manipulation with different motors.

The real elements are:



Idling actuator



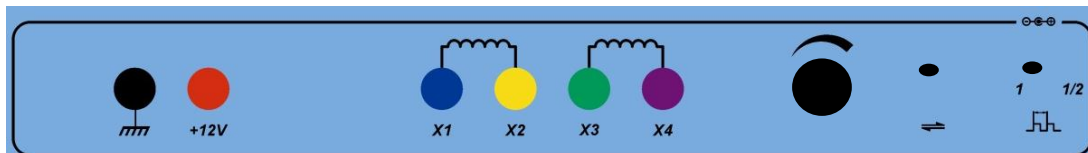
Cabin air recycling motor







Motor of front lamps height adjustment

The elements assembled by EXXOTEST®:

- Plug of motors power supply (+12V);
- Plug for command signals measuring;
- Direct measuring of the motors ohm values;
- Control panel:



-  → Mass;
- +12V → Power supply +12V;
- X1 and X2 → Command signal 1;
- X3 and X4 → Command signal 2;
-  → Speed variation;
-  → Change of direction;
-  → Mode change from 1 step to 1/2 step.

SPECIFICATIONS:

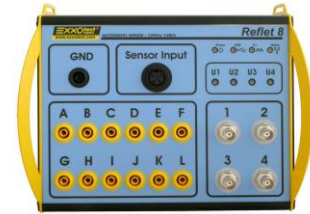
The stepping motor receives periodic square diphase signals and transforms them into rotary mechanical movements called "step" or " $\frac{1}{2}$ step". For a step, the axis of the motor rotates by 90° . For $\frac{1}{2}$ step, the rotor moves through an angle of 45° .

OUTFITS:

This module could be used with oscilloscope as REFLET® 8-4.

It is a 4 channels oscilloscope with configurable trigger:

- 12 MHz frequency
- 8 Ms/s sampling rate
- 12 bits resolution



Either you could use the **EXXOTEST® CL550**. The multi-functions tester bringing together the functions of Oscilloscope, Mutimeter and OBD II scantool.

- 100% evolutionary: USB PC link for printout, data export, updates,
- 100% **EXXOTEST®**: easy, user friendly and efficient.

Main features:

- 2 channels multi-meter with trace mode,
- 2 channels Oscilloscope,
- OBD II 9 modes Scan tool.

OTHER

- Delivered with:
 - use and teaching instruction book,
 - banana plug cable assemblies according to the module needs,
 - 12V and / or 5V power supply according to the module's needs.
- Power supply: 220/110Vac – 50/60Hz.
- Size: 600 X 400 X 300 mm (transportation box).
- Gross weight : 6,6 Kg (ready to ship).
- Net weight: 5,6 Kg.

Find all **EXXOTEST®** products on the Internet: www.exxotest.com