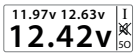
Switching modes

Modes can be switched by short press of 'MODE' button 2, LED indicator 11 will confirm selected mode.

To proceed to the sub-modes menu, press and hold 'MODE' button 2 for 2 seconds. Short presses of 'MODE' button 2 will switch sub-modes. Sub-modes will be indicated on LCD display 10 and LED indicator 9 will confirm every selected mode.

VOLT/SENS mode



This mode is used to measure the voltage level. The voltage value is indicated by the main 4-digit numeric indicator, and by 2 additional indicators that average maximum and minimum circuit voltage for the last 5 seconds of constant measuring.

In this mode LED indicator 8 is lit green when the voltage on the needle is less than 1V, lit orange when the voltage on the needle-probe is from 2 to 6V, and lit red when the voltage is more than 6V.

Parametric voltage LED indicator 9 has five intervals of values 3-6-9-12-15V.

When the device is connected in a grounding spot, low tone signal will sound.

While measuring it is possible to check the voltage change in the circuit by adding a 50Ω or 1kΩ resistance using button 3 and 4.

Range of measuring voltages is 0,5-36V with an accuracy of 0,5% and 0,01-0,5V with an accuracy of 2%.

WARNING!
To avoid failure of the device DO NOT measure DC (direct current) and AC (alternating current) voltage higher than 36V.

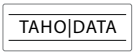
WARNING!
The function to emulate button (3 and 4) hold for adding resistance is available starting with firmware version v.1.08. To enable button holding for 3 or 4, shortly press corresponding button 2 times. Button holding mode is disabled with short press of the button or tester will exit this mode automatically in 60 seconds.

The following functions can be set by selecting a sub-level:

– switching on/off sound indication when the probe touches the ground

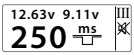
– tone indication about voltage level (changing signal tone according to the voltage on the needle-probe of the tester)

– light indication (voltage level on the needle is displayed by LED indicator 9 with gradation 3-6-9-12V)

TAHO/DATA mode 

This mode is used to function with car signal circuits that have sinusoidal signal form or square pulses signal and for the initial recognition of data lines. This mode is used to detect tachometric pulses and pulse circuits of sensors.

PULSE TIMING mode 



This mode is used to measure duration and polarity of a single pulse. The device allows to measure pulses with duration from 1 millisecond to 60 seconds in voltage range from 0V to 30V.

Connect the device to the measuring circuit, shortly press button 3 or 4, the device will memorize the current circuit voltage and will enter pulse standby mode, READY will be shown on the display.

When pulse is detected the device will memorize its polarity, duration and will display minimum and maximum voltage values.

If the pulse duration is more than 60 seconds, the device will issue an error message (ERROR).

GENERATOR mode 

This mode is used to send the series of rectangular negative polarity signals to the needle-probe of the tester to determine the conductor location, to simulate speed sensor signals and etc.

This mode has 4 sub-modes:

 Determining of the conductor location. When this sub-level is selected the series of triple negative pulses with a pause will be sent to the needle-probe of the tester. Using the second tester, location of the desired wire can be detected by these signals.

5 Hz – sub-mode of meander-type signal generator (negative rectangular pulses with a duty cycle of 2) with a frequency of 5 Hz.

10 Hz – sub-mode of meander-type signal generator with a frequency of 10 Hz.

15 Hz – sub-mode of meander-type signal generator with a frequency of 15 Hz.

2, 3 and 4 sub-modes can be useful when simulating signals from speed or idle speed sensors, for example: when setting up switching off of the original display while moving function.

In this mode (including all available sub-modes) trigger switching on/off sound signals is available by short press of button 3 or 4.

CAN DETECT mode

This mode is used to detect most digital CAN and LIN-buses.

WAIT the device is preparing for digital buses detection.

READY the device is ready for digital buses detection.

CAN-bus – high level

CAN-bus – low level

Serial LIN-bus

Signal is not detected

Digital bus of unique format

Replacement and adjustment of the needle-probe of the tester

Unscrew the screw 7, remove the needle-probe 6 and install a new needle instead of the previous one (any sewing needle works) . If required, shorten to the desired length. Tighten the screw 7.

Firmware update

Multipurpose car tester Pandora ALT-205 firmware can be updated the using micro-USB socket. To update the firmware, download the latest firmware version and Pandora Alarm Studio program version no less than v.0.6.16 from the official company web-site pandorainfo.com

To update the firmware:

connect tester USB to any free USB socket of the computer using micro-USB cable (Pandora ALT-205 should be switched off);
start Pandora AlarmStudio, the program will detect the connected device and will proceed to the selection for the firmware update;
select the required firmware file in 'Load from a file' dialog window and press 'Update' button;
After the firmware update disconnect Pandora ALT-205 from the computer.

Specifications

Battery	AAA battery
Input impedance	0,5MOm
Voltage measurement accuracy	0.5%
Frequency measurement accuracy	0.5%
Current consumption in measurement mode	25mA
Current consumption in illumination mode	55mA
Current consumption in 'Switch off' mode	0,025mA

Manufacturer reserves the right to change set and construction of the product to improve its technological and operational parameters without notification.

The latest firmware version and Pandora ALT-205 user manual can be downloaded from the official company web-site pandorainfo.com

pandorainfo.com
Made in Russia
20a, Kirova str., Kaluga, Russia

Product is in conformity with Electromagnetic Compatibility Directive EMC 2004/108/EC and R&TTE Directive 1999/5/EC

CE v.1.3

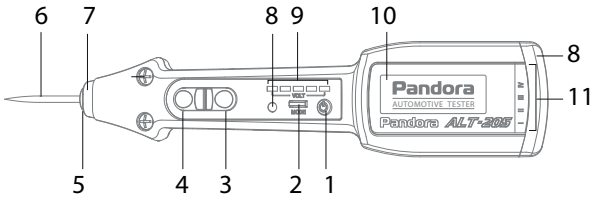
Pandora ALT-205 multipurpose car tester

Pandora ALT-205 is multifunctional auto electrician's device that is designed for professional use in the process of repair and installation work with original electronics of modern cars, including cars with digital data CAN, LIN, K-BUS, W-BUS, K-LINE, etc. buses and with data rates up to 1Mbps.
The device is designed for modern cars with on-board voltage 12 and 24V.

WARNING!
To avoid failure of the device DO NOT measure DC (direct current) and AC (alternating current) voltage higher than 36V.

The device is switched on/off by long button 1 press (for quick start: 2 short button 1 presses).
To switch on LCD display and measuring zone illumination shortly press button 1, illumination will fade automatically in 10 seconds.
The device will be switched off automatically in 5 minutes of non-use.

1. Switch on button
2. Switching modes and sub-modes button
3. Switch resistance 50Ω button
4. Switch resistance 1kΩ button
5. Measuring zone illumination
6. Needle-probe
7. Fastening screws
8. Operation indicator
9. LED parametric measuring indicator, sub-modes indicator
10. LCD display
11. Mode indicator



Measuring and diagnosing modes

VOLT|SENS	voltage measuring mode I
TAHO|DATA	frequency measuring mode II
PULSE TIMING	pulse duration measuring mode III
GENERATOR	rectangular signals generating mode IV
CAN DETECT	digital buses detecting mode V

In modes I and II it is possible to switch capacity 50Ω or 1kΩ to the measuring circuit using buttons 3 and 4.