

POLON 4000/6000 FIRE ALARM SYSTEM

TLD-6000 DETECTION LINE TESTER

Operating Instructions

IK-E353-001

Edition I

The manufacturer Polon-Alfa accepts no liability for any damage resulting from usage inconsistent with the manual.

A waste product, unsuitable for further use, shall be passed to a waste electric and electronic equipment collection point.



Note - The manufacturer reserves the right to change specification of products at any time without a prior notice.

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1. Intended use

The TLD-6000 Detection Line Tester is intended for commissioning, checking the correct operation, diagnosing damages and measuring the characteristic parameters of the addressable detection lines (including installed line components) of the POLON 6000/4000 system, without connecting the control panel. An excellent tool for service technicians and installers, helps in solving problems related to eliminating faults.

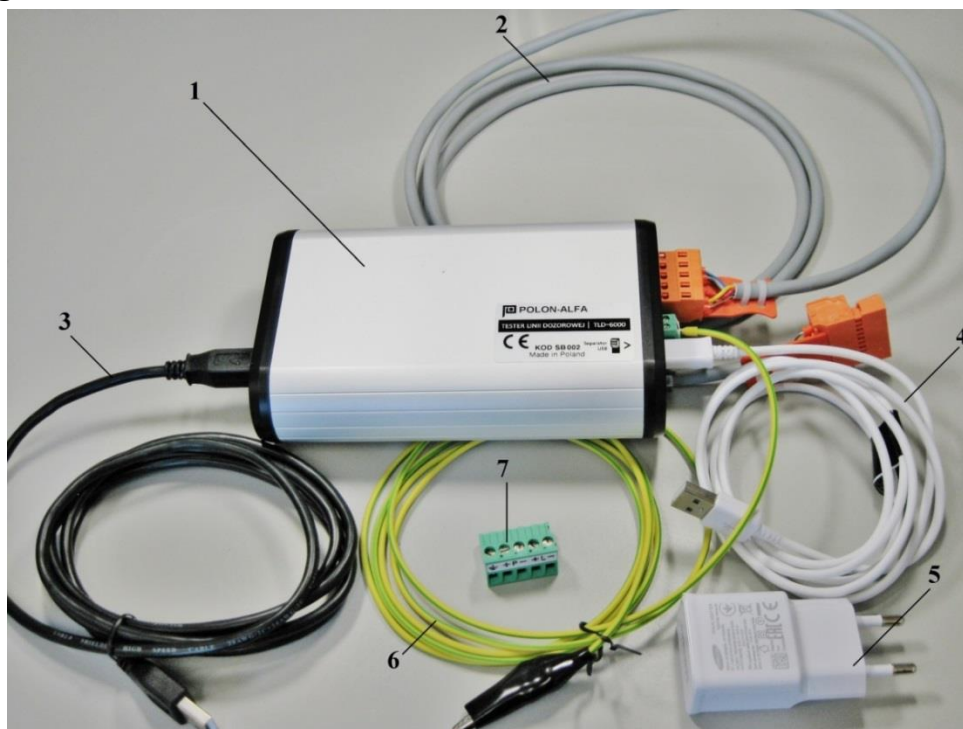
2. Warnings

Ensure safe working conditions for the device. Performing any repairs by the user may cause the device malfunction. Connecting the tester to devices other than dedicated ones may lead to its permanent damage. The tester is not a waterproof device. The tester is a portable device. Avoid heavy shocks and protect against falling.

3. Technical data

Supply voltage/current	5VDC/min. 1A
Operating temperature	-5°C/+40°C
Humidity	95% RH
Housing	Aluminum
Rated detection loop current	20mA/50mA
Maximum resistance of the detection loop	2x100 ohms
Maximum loop capacity	300nF
Dimensions	150 x 95 x 40 mm
Weight	280 g

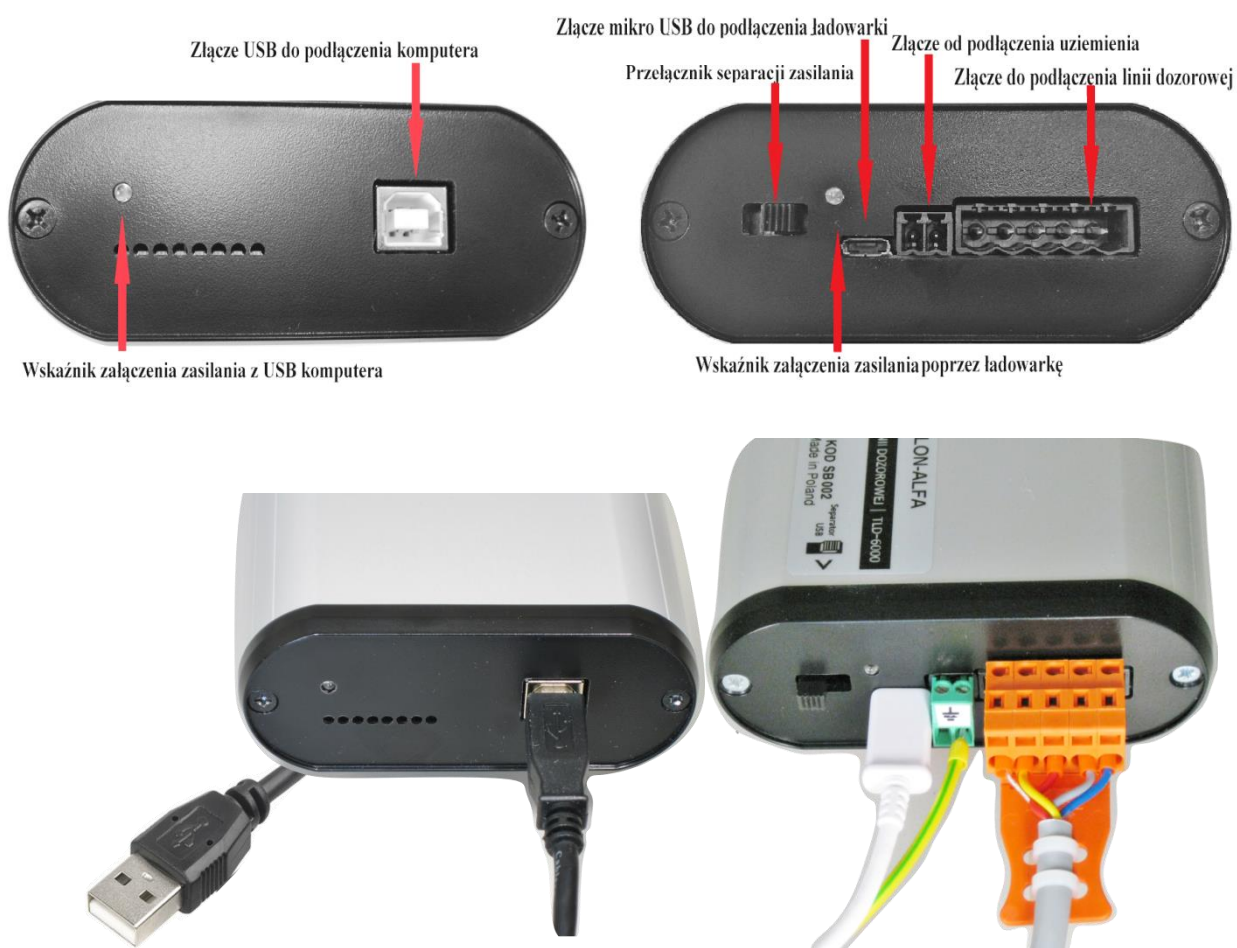
4. Package contents



- 1 – TLD-6000 Tester
- 2 – Cable for the detection line connection (extension cable)
- 3 – USB cable for computer connection
- 4 – Micro USB cable for charger
- 5 – Tester power supply (5VDC micro USB charger rated at min. 1A)
- 6 – Grounding cable with crocodile clip
- 7 – Socket for connecting the detection line, compliant with the extension cable

5. Device description

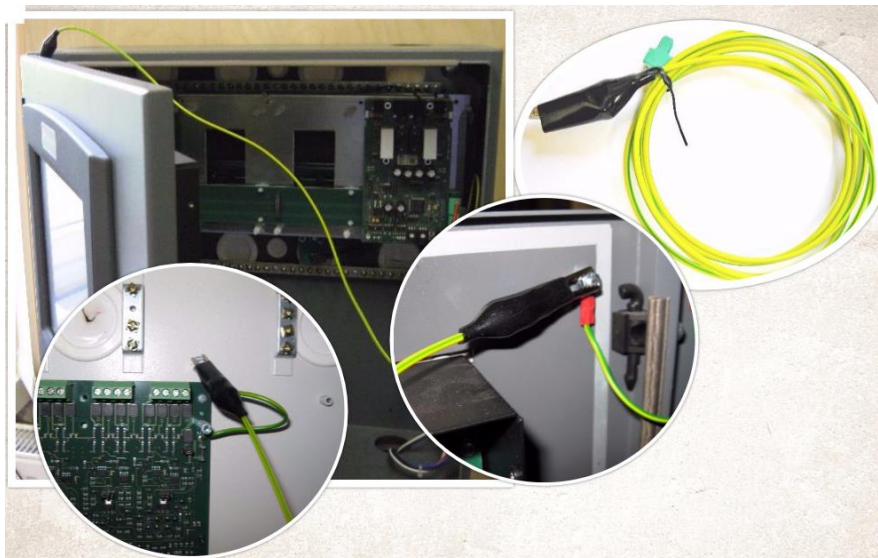
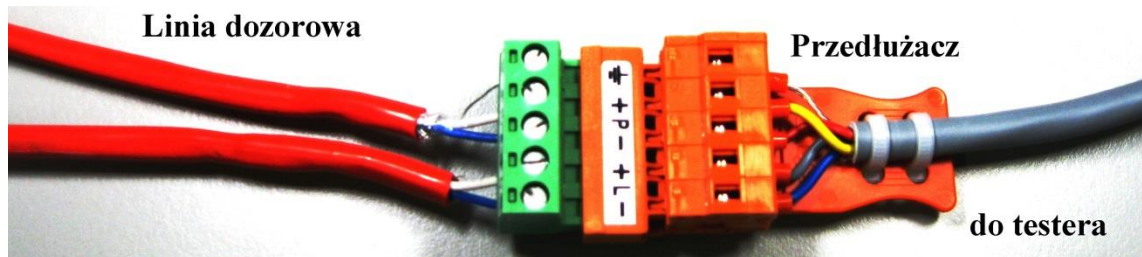
The device is equipped with a micro USB connector that allows it to be powered from the USB port of a computer, mobile phone charger or power bank battery.



Using the intuitive interface of the **PolonTester** software, you can connect to any line component (detector, MCP, input/output device, etc.), configure it, check its status, read the characteristic parameters, etc. The application allows you to configure the line, save the profile configuration and import the configuration from the control panel software as well as it allows for test reports printing, system configuration and reading of the line topology.



The included socket is intended for connection to the 4000 System line and is compatible with the extension cord





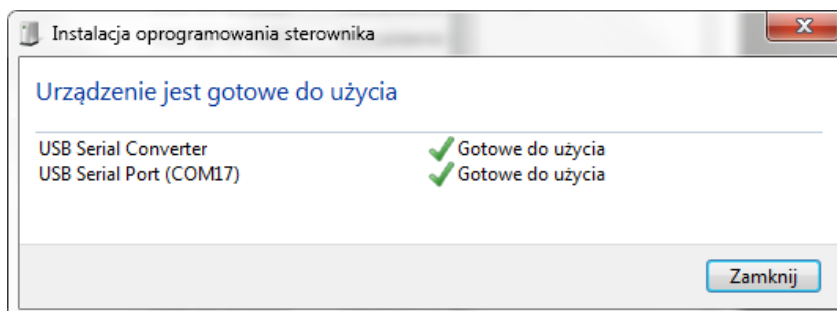
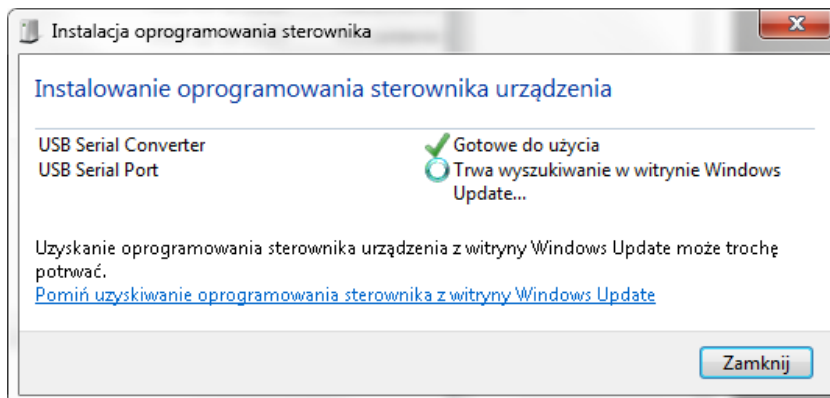
When choosing a power bank type battery, the recommended minimum capacity is 8000mAh.

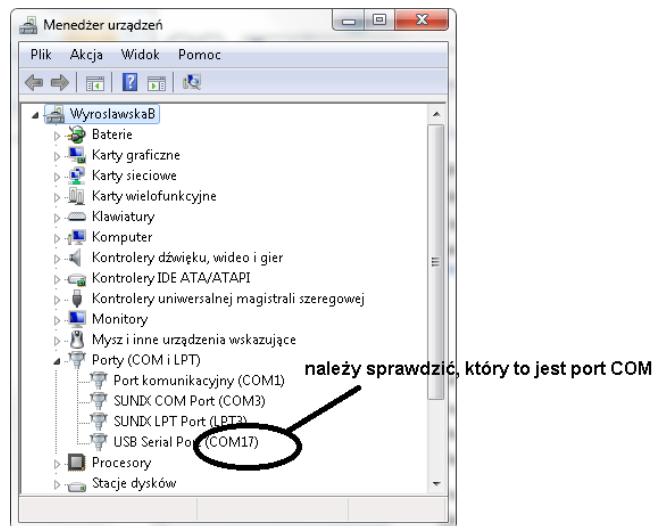
- When powered via the computer's USB port, it should be remembered that the Tester loaded with the detection line can temporarily consume up to approx. 1.5A. The standard USB ports in the 2.0 specification are characterized by a maximum current capacity of 500mA, and ports in the 3.0 specification provide 0.9A. The two-position switch should be set to **USB (separation disabled)**.

Note: In the case of an earth fault test, the switch must be switched to the **Separator** position (separation enabled) so that the tester does not provide incorrect results.

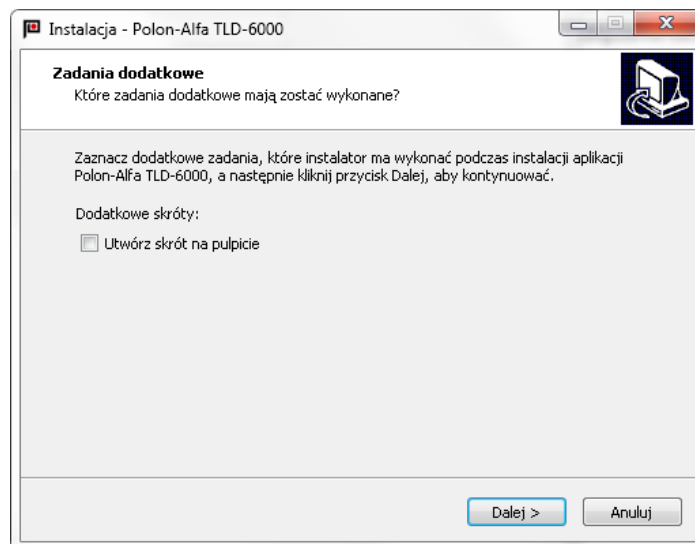
7. Launching the tester

The first launch of the Tester involves the installation of device driver software, which may take a few seconds.

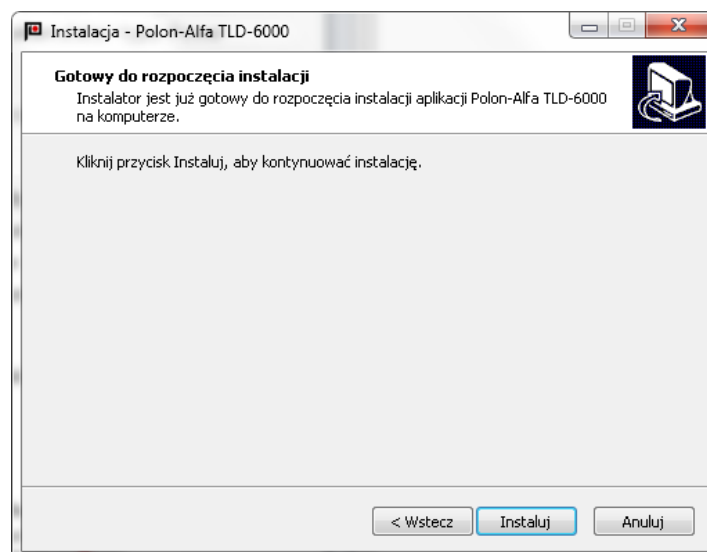




The **PolonTester-setup.exe** file is the installation application. The application is intuitive and its operation is simple. After starting the application, the installation window will appear:

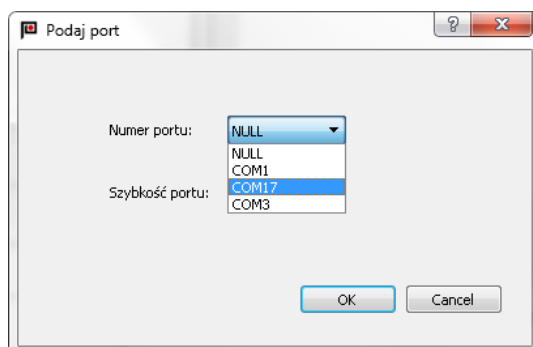


Follow the instructions on the screen



7.1. Port selection and opening

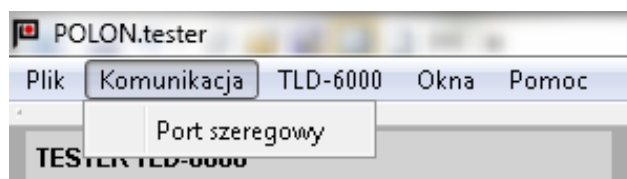
The application automatically searches for ports that are available on the computer



Note: Testing fails when the selected port is already being used by another application. In such case, change the port.

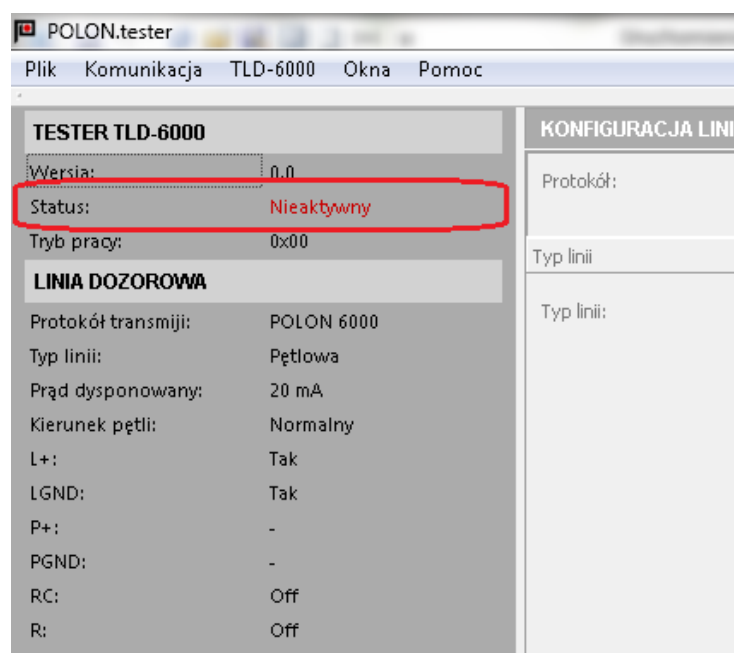
The **Enter port** window displays all available ports.

Changing the port is done by selecting the **Communication/Serial port** (Komunikacja/Port szeregowy) tab from the main menu.




Correct connection of the tester and installation of the application allows to run the test program.

WARNING! In the absence of connected equipment or power supply to the tester, the test program will be inactive.

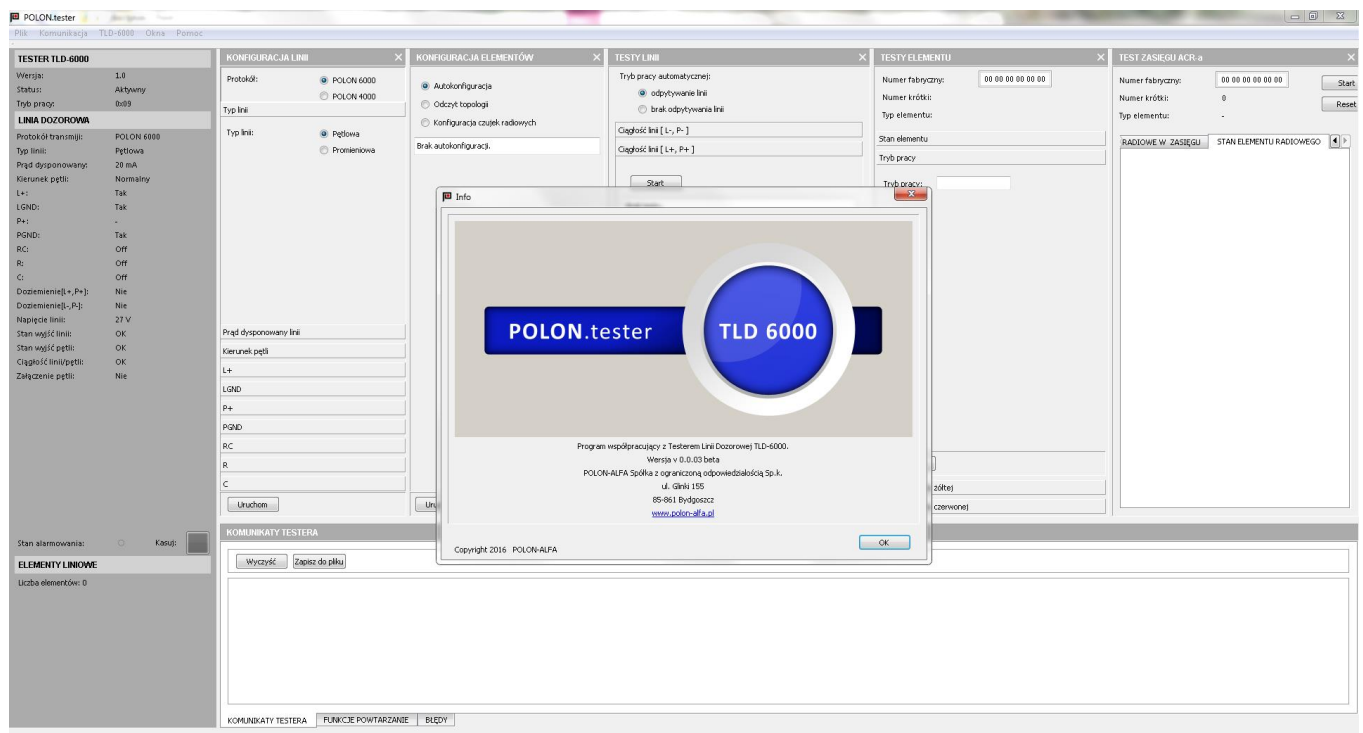


8. Navigation in the POLON Tester application

Polon-Alfa TLD-6000 is a window-based application that thematically groups the functions of the tester. Navigate between windows using a *mouse*. Active windows can be stretched or narrowed and closed with .

The serial number of a line component can be dragged between windows to the appropriate fields.

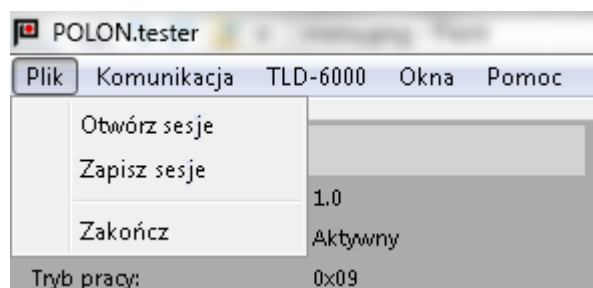
After launching the application, a window with the name and version of the application appears on the screen. Polon.tester app requires the user to select the port number to which the device is attached.



Menu bar appearance:

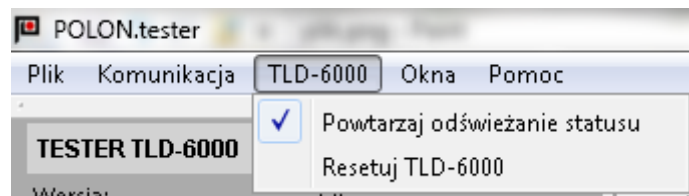


- The *File* (Plik) tab displays the options:
 - *Open sessions* (Otwórz sesje)
 - *Save sessions* (Zapisz sesje)

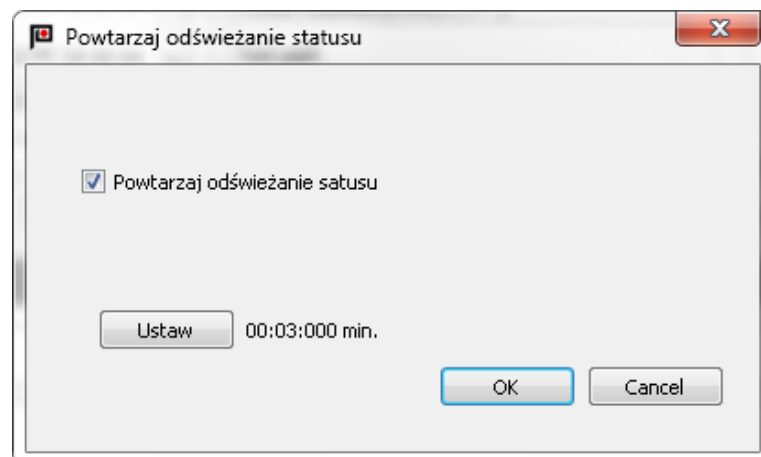


Both features refer to application settings available for saving for a given object and restore the next time you start the application.

- Selecting the **Communication/Serial port** (Komunikacja/Port szeregowy) tab will display the **Enter port** (Podaj port) window, in which available ports are displayed. Select the appropriate port.
- The **TLD-6000** tab displays the following options:
 - *Repeat status refresh* (Powtarzaj odświeżanie statusu)
 - *Reset TLD-6000* (Resetuj TLD-6000)

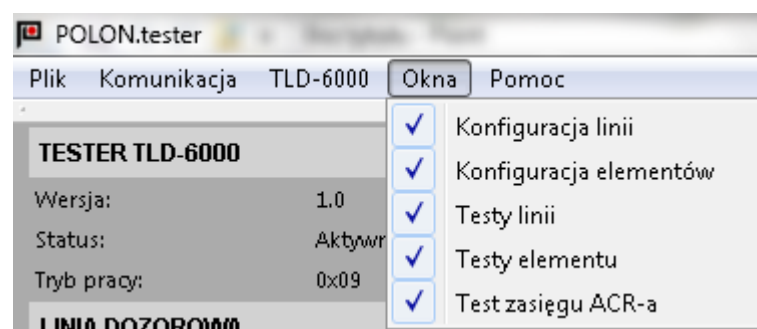


Selecting the **Repeat status refresh** (Powtarzaj odświeżanie statusu) option results in the application checking the line status every 3 seconds by default, regardless of the operating mode. This time may be changed after selecting the **Set** (Ustaw) button.

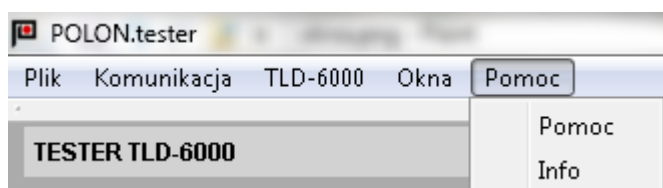


The **Reset TLD-6000** (Resetuj TLD-6000) option clears the tester registers and RAM memory and re-initializes the application in the tester.

- The **Windows** (Okna) tab allows to choose windows that are displayed on the screen



- The **Help** (Pomoc) tab allows for access to the help and window with the *POLON.test* app version.



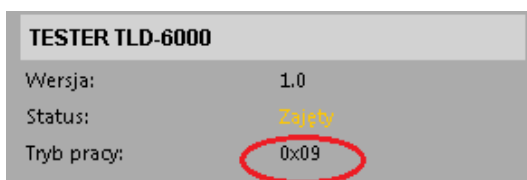
9. Tester information window

The information window is divided into three parts: the first part is related to the operation of the TLD 6000 Tester, the second part is related to the properties of the detection line and the third part is related to the line components.

While displaying the **Status**: Tester when **Busy** does not respond to orders sent to it



The **TLD-6000 TESTER** (TESTER TLD-6000) window displays information related to the Tester's status and operating modes.



Operating modes of the TLD-6000 tester	FUNCTION CODE
Idle mode	0x00
External line preview mode	0x01
Test checking for continuity of LP- line	0x02
Test checking for continuity of the LP+ line	0x03
LP- earth fault test	0x04
LP+ earth fault test	0x05
Loop test	0x06
Loop voltages and currents test	0x07
Auto configuration test	0x08
Automatic operation mode	0x09
Manual operation mode	0x0A
Test locating the component breaking the line	0x0B
Test localizing the interfering component	0x0C
Reads the line topology	0x0D
Refreshes the status	0x0E
Line resistance test	0x10

Sets the line configuration	0x20
Sets line configuration parameters	0x21
Listens for signals from the line	0x22
Sets test modes	0x23
Tester response	0x24
Autoconfiguration order	0x25
Autoconfiguration result	0x26
Test of configured line components	0x27
Line component declaration	0x28
Command from the PC to the line component	0x40
Command from TLD-6000 to the line component	0x41
Line component response	0x42
Alarm reset	0x43
Disruption from line	0x50
Perform tester reset	0x90

DETECTION LINE (LINIA DOZOROWA) window: shows the status and properties of the detection line. All line anomalies are marked in red. If more detailed information about the anomaly is needed, more thorough tests should be performed using the **LINE TESTS** (TESTY LINII) window

Any changes to the detection line properties can be made using the **LINE CONFIGURATION** (KONFIGURACJA LINII) window.











LINIA DOZOROWA	
Protokół transmiji:	POLON 6000
Typ linii:	Pętlowa
Prąd dysponowany:	20 mA
Kierunek pętli:	Normalny
L+:	Tak
LGND:	Tak
P+:	Tak
PGND:	Tak
RC:	Off
R:	Off
C:	Off
Doziemienie[L+,P+]:	Nie
Doziemienie[L-,P-]:	Nie
Napięcie linii:	27 V
Stan wyjść linii:	Zwarcie linii
Stan wyjść pętli:	Zwarcie pętli
Ciągłość linii/pętli:	Przerwa
Załączenie pętli:	Tak

To reset the line **alarm state** use the **Reset** (Kasuj) button.



The third part of the information window displays the line components connected to the line along with their status after auto-configuration or following the topology readout. The meaning of the individual columns, respectively:

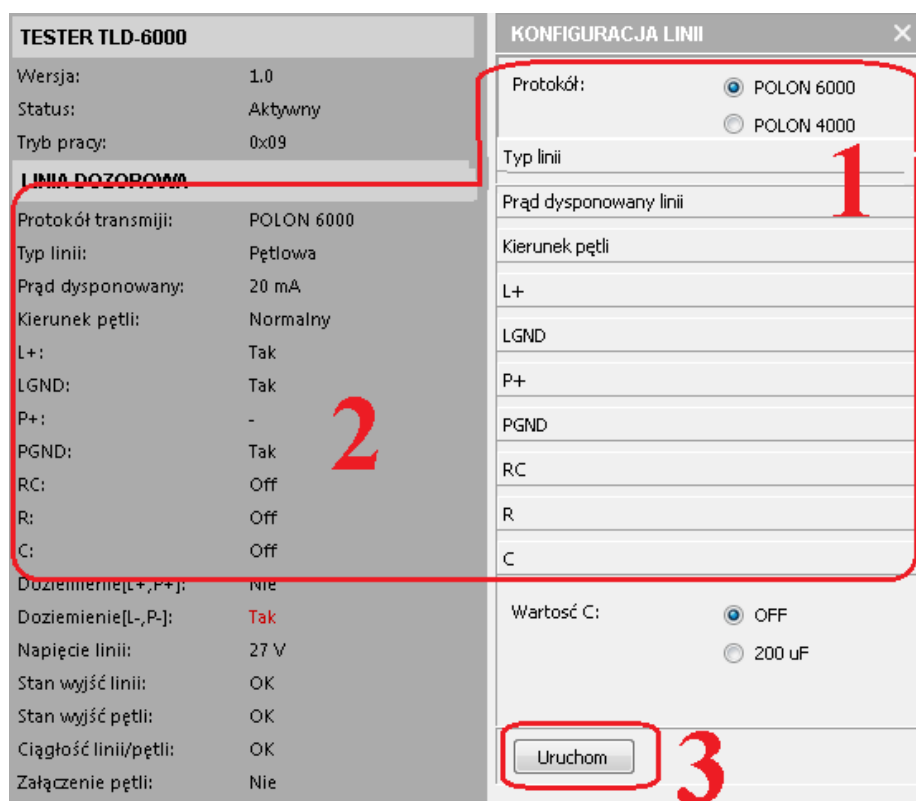
- Nr (No.) - Topological number
- O. - Branch number
- Loop device symbol
- Typ (Type) - device type
- Serial number
- A - Alarm state
- U – Fault state
- IZ - Line break state
- S - Service state
- H - for devices of the 6000 series equipped with Hall generator.

ELEMENTY LINIOWE									
Liczba elementów: 10									
Nr	O.	Typ	Numer fabryczny	A	U	IZ	S	H	
1	-	 DUO-6043	27 10 QA 00 10 11	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
2	-	 DOT-4046	04 62 RA 00 05 54	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
3	-	 DUO-6046	11 10 QA 00 10 38	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
4	-	 DOR-4046	02 60 MA 00 42 07	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
5	-	 DUO-6046	11 10 RC 00 00 05	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
6	-	 EKS-6040	43 12 PC 00 00 64	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
7	-	 EKS-6004	44 12 PD 00 02 63	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	
8	-	 EKS-6040	43 12 PC 00 00 37	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
9	-	 DUO-6046	11 10 QA 00 10 33	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
10	-	 DUO-6046	11 10 RC 00 00 07	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

The tester allows you to test each component separately. To do this display the **ELEMENT TESTS** (TESTY ELEMENTU) window and then drag the serial number of the tested component to the appropriate field in the ELEMENT TESTS (TESTY ELEMENTU) window.

10. LINE CONFIGURATION

The **LINE CONFIGURATION** (KONFIGURACJA LINII) window is used to set parameters of the detection line in order to view and test the actual values, connect RC and to inverse the loop.



Parameters that may be changed using the tester are:

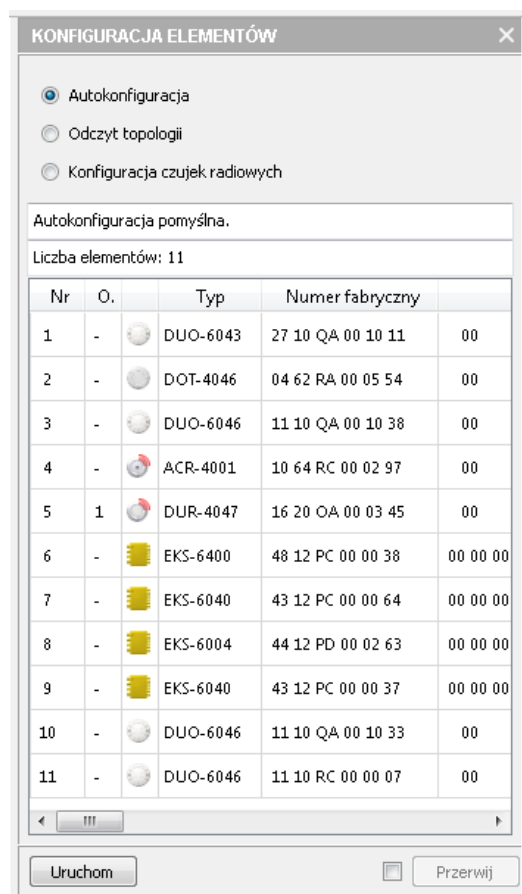
- Protocol
- Detection line type
- Available current
- Loop direction
- L+
- LGND
- P+
- PGND
- Enable RC
- R value (RC must be enabled)
- C value (RC must be enabled)

The line parameters are read by the tester every 3 seconds by default, and are shown in the information window. To confirm changes press the *Run* (Uruchom) button.

11. ELEMENTS CONFIGURATION

The configuration window has three options to choose from:

- **Autoconfiguration** (Autokonfiguracja): the tester reads the line configuration, saves it to memory and displays in the window the devices connected to the detection line together with their factory numbers and the operating mode
- **Topology readout** (Odczyt topologii): use this feature to read the saved configuration from memory and display it in the window
- **Wireless detectors configuration** (Konfiguracja czujek radiowych): use this feature to declare, read, clear detectors assigned to the selected wireless detector adapter.



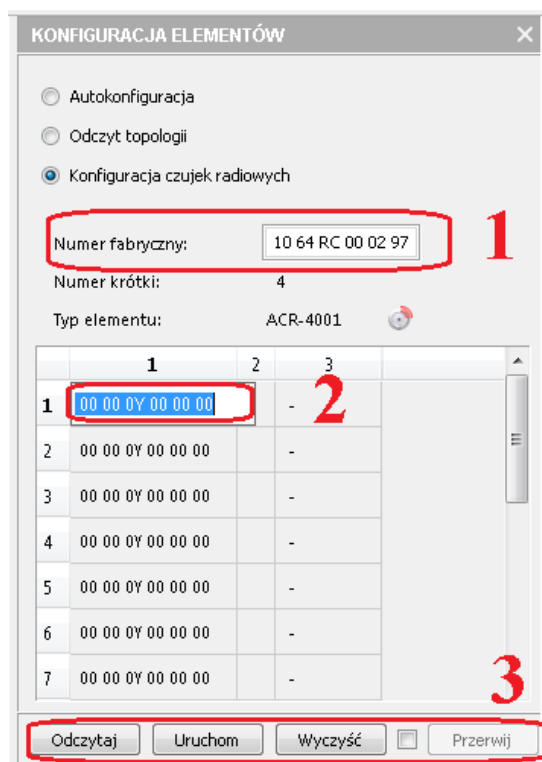
To **configure wireless detectors** enter the serial number of the appropriate ACR-4001 Adapter or drag the serial number to the chosen field using mouse **1**.

After pressing the **Read** (Odczytaj) button, the app will read the serial numbers of the declared wireless components.

To assign a wireless call point to the ACR-4001 (up to 16 devices may be assigned) enter the serial number of the call point in the appropriate field according to the format

2 and the **Run** (Uruchom) button confirms **3**.

The **Clear** (Wyczyść) button removes all declared wireless components.

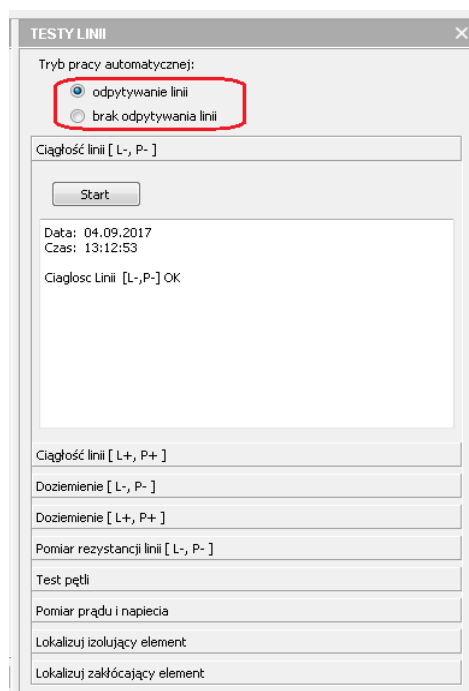


12. LINE TESTS

The **LINE TESTS** (TESTY LINII) window is used to discover damage of the detection line. The TLD-6000 tester can not only read and delete line errors but it can also measure important parameters.

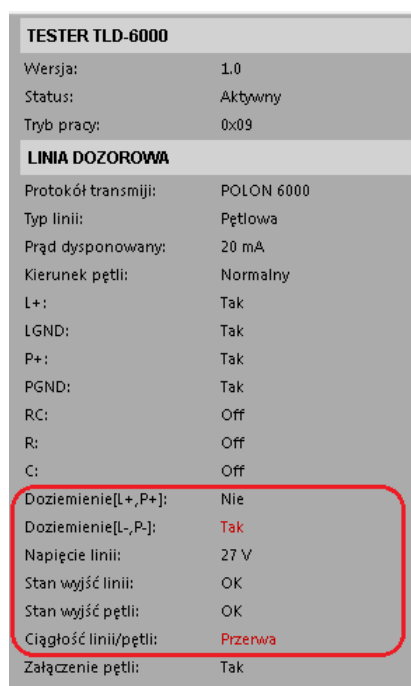
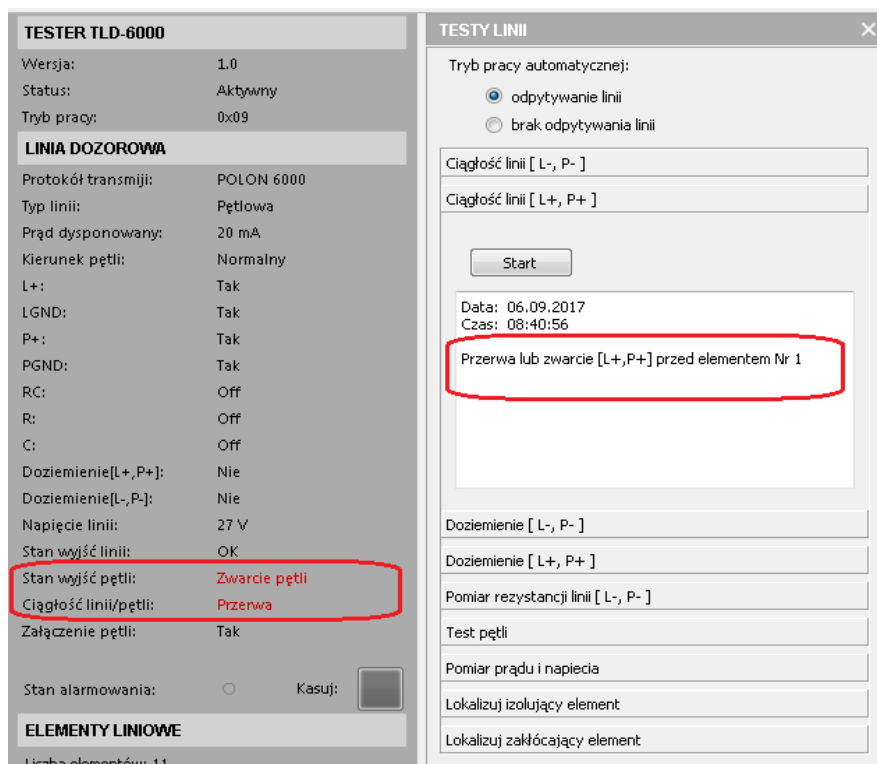
It has two modes of automatic operation:

- **line refresh** (odpytywanie linii): this is a fully automatic mode (looped polling)
- **no line refresh** (brak odpytywania linii): the tester is idle and is waiting for an order to be sent to the line



The tester detects faults in the line and displays them in the information window in red. The information can be detailed by performing tests in the **LINE TESTS** (TESTY LINII) window.

If a message appears informing about an open or short circuit and about loop being switched on, conduct line/loop continuity tests that will indicate the approximate location of the problem. The continuity tests are carried out separately for the loops on the - and + lines. Based on measurements of the line voltages $U[L-, L+]$, $U[P-, P+]$ and currents $I[L+]$, $I[L-]$, $I[P+]$, $I[P-]$, the tester detects the fault location.

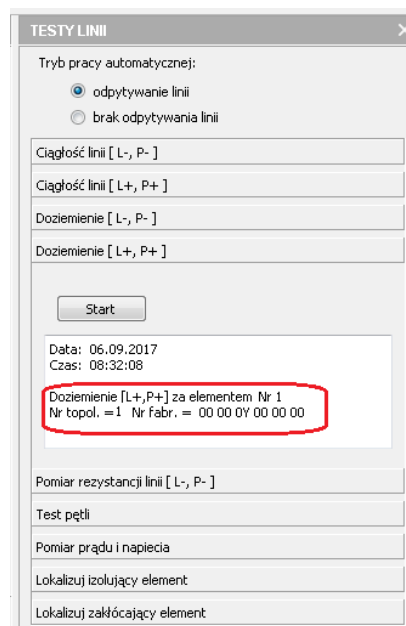


In the event of an earth fault, check whether the shielding is connected to the tester line. Then perform a detailed earth fault test. In the next step, disconnect the screen from the tester and

connect the supplied grounding cable with the crocodile clip to the control panel housing and to the tester. Perform earth fault test again.

Note: The switch must be in the **Separator** (separation enabled) position so that the tester can properly carry out the earth fault test.

The negative result of **the earth fault test** is most often due to mechanical damage to the line (insulation worn-out and short circuited to the control panel housing, shorting of the detection line wire with the shielding, etc.) or due to independent/external events during operation that are not related to the installation, e.g. flooded detector.



Nonetheless, measurements of voltage, current and resistance of the line cables are important tests of the detection line depending on its configuration. The tester discovers excessive resistance, excessive voltage at the end of the detection line, as well as transmission errors due to excessive line capacity.

TESTY LINII

Tryb pracy automatycznej:

odpytywanie linii
 brak odpytywania linii

Ciągłość linii [L-, P-]
Ciągłość linii [L+, P+]
Doziemienie [L-, P-]
Doziemienie [L+, P+]
Pomiar rezystancji linii [L-, P-]

Start

Data: 05.09.2017
Czas: 11:03:05

Napiecie U[L-,L+] = 1,218 [V]; U[P-,P+] = 0,996 [V]
Prad I[L+] = 0 [mA]; I[L-] = 0 [mA]
Prad I[P+] = 0 [mA]; I[P-] = 94,205 [mA]
Rezystancja linii R[L-,P-] = 2,360 [Om]

Test pętli
Pomiar prądu i napięcia
Lokalizuj izolujący element
Lokalizuj zakłócający element

In open/radial detection lines, upon detection of a short circuit, the nearest isolator in front of short circuit is activated and the part of line behind this isolator becomes disconnected.

In the loop topology, as a result of a short circuit of the detection line wires, two insulators in the line device installed closest to the place of damage will activate, as a result of which only part of the detection loop between these elements will be disconnected.

The **Locate isolating element** (Lokalizuj izolujący element) test displays the type and number of the isolating component, if any.

The **Locate interfering element** (Lokalizuj zakłócający element) test displays the type, topological and serial number of the interfering device.

TESTY LINII

Tryb pracy automatycznej:

odpytywanie linii
 brak odpytywania linii

Ciągłość linii [L-, P-]
Ciągłość linii [L+, P+]
Doziemienie [L-, P-]
Doziemienie [L+, P+]
Pomiar rezystancji linii [L-, P-]
Test pętli
Pomiar prądu i napięcia
Lokalizuj izolujący element
Lokalizuj zakłócający element

Start

Transmisja OK
DOR-4046 Nr topol. = 4 Nr fabr. = 02 60 MA 00 42 07 -
Transmisja OK
EKS-6040 Nr topol. = 5 Nr fabr. = 43 12 PC 00 00 64 -
Transmisja OK
DUO-6046 Nr topol. = 6 Nr fabr. = 11 10 RC 00 00 05 -
Transmisja OK
EKS-6004 Nr topol. = 7 Nr fabr. = 44 12 PD 00 02 63 -
Transmisja OK
EKS-6040 Nr topol. = 8 Nr fabr. = 43 12 PC 00 00 37 -
Transmisja OK
DUO-6046 Nr topol. = 9 Nr fabr. = 11 10 QA 00 10 33 -
Transmisja OK
DUO-6046 Nr topol. = 10 Nr fabr. = 11 10 RC 00 00 07 -
Transmisja OK
BRAK ZAKŁOCAJĄCYCH ELEMENTÓW !

13. COMPONENT TESTS

The **ELEMENT TESTS** (TESTY ELEMENTU) window displays messages related to the selected device. Type-in or drag the serial number to the appropriate field of the **ELEMENT TESTS** (TESTY ELEMENTU) window using mouse. The status of the device and its operating parameters will be displayed, where 1 means the occurrence of the given parameter.

Stan alarmowania: ● Kasuj: [X]

ELEMENTY LINIOWE

Liczba elementów: 10

Nr	O.	Typ	Numer fabryczny	A
1	-	DUO-6043	27 10 QA 00 10 11	<input type="radio"/>
2	-	DOT-4046	04 62 RA 00 05 54	<input type="radio"/>
3	-	DUO-6046	11 10 QA 00 10 38	<input type="radio"/>
4	-	DOR-4046	02 60 MA 00 42 07	<input checked="" type="radio"/>
5	-	EKS-6400	48 12 PC 00 00 38	<input type="radio"/>
6	-	EKS-6040	43 12 PC 00 00 64	<input type="radio"/>
7	-	EKS-6004	44 12 PD 00 02 63	<input type="radio"/>
8	-	EKS-6040	43 12 PC 00 00 37	<input type="radio"/>
9	-	DUO-6046	11 10 QA 00 10 33	<input type="radio"/>
10	-	DUO-6046	11 10 RC 00 00 07	<input type="radio"/>

TESTY ELEMENTU

Numer fabryczny: 02 60 MA 00 42 07

Numer krótki: 4

Typ elementu: DOR-4046

Stan elementu

Alarm: 1

Prealarm sensora dymu: 0

Prealarm sensora temperatury: 0

Blokowanie przerwania alarmowych: 1

Priontyet niski/normalny: 1

Nakaz włączenia izolatora zwarć: 0

Red LED: 0

Blokowanie sygnalizcji izolowania z...: 0

Uszkodzenie sprzętowe: 0

Izolowanie zwarć: 0

Uszkodzenie EEPROM-u: 0

Stan serwisowy: 0

Topologia: 0

Lokalizacja - halotron: 0

ELEMENTY LINIOWE

Liczba elementów: 10

Nr	O.	Typ	Numer fabryczny	A	U	IZ	S	H
1	-	DUO-6043	27 10 QA 00 10 11	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	-	DOT-4046	04 62 RA 00 05 54	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	-	DUO-6046	11 10 QA 00 10 38	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	-	DOR-4046	02 60 MA 00 42 07	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5	-	EKS-6040	43 12 PC 00 00 64	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6	-	DUO-6046	11 10 RC 00 00 05	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7	-	EKS-6004	44 12 PD 00 02 63	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
8	-	EKS-6040	43 12 PC 00 00 37	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9	-	DUO-6046	11 10 QA 00 10 33	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10	-	DUO-6046	11 10 RC 00 00 07	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

TESTY ELEMENTU

Numer fabryczny: 44 12 PD 00 02 63

Numer krótki: 7

Typ elementu: EKS-6004

Stan elementu

Alarm: 0

Prealarm sensora dymu: 0

Prealarm sensora temperatury: 0

Blokowanie przerwania alarmowych: 0

Priontyet niski/normalny: 1

Nakaz włączenia izolatora zwarć: 1

Red LED: 0

Blokowanie sygnalizcji izolowania z...: 0

Uszkodzenie sprzętowe: 0

Izolowanie zwarć: 1

Uszkodzenie EEPROM-u: 0

Stan serwisowy: 1

Topologia: 0


Lokalizacja - halotron: 0

You can force any period of cyclic lighting of the yellow or red LEDs. You can also set the required operating mode for the given component from the available range.

TESTY ELEMENTU [X]

Numer fabryczny: 44 12 PD 00 02 63


Numer krótki: 7

Typ elementu: EKS-6004 

Stan elementu

Tryb pracy

Zapalenie diody żółtej

Żółta dioda: 

Uruchom Powtarzaj funkcje:

Ustaw 0 min, 5 s 0 ms


Zapalenie diody czerwonej

Setting the operating mode suitable for each component type. By default, all call points are set to mode 1.

TESTY ELEMENTU [X]

Numer fabryczny: 10 64 RC 00 02 97

Numer krótki: 4

Typ elementu: ACR-4001 

Stan elementu

Tryb pracy

Tryb pracy 6

6 - testowanie czujki [2s] ▼

- 1 - normalna praca
- 2 - testowanie czujki [2s]
- 3 - normalna praca
- 4 - testowanie czujki [2s]
- 5 - normalna praca
- 6 - testowanie czujki [2s]
- 7 - normalna praca
- 8 - testowanie czujki [2s]
- 9 - normalna praca
- 10 - testowanie czujki [2s]

Uruchom

14. ACR RANGE TESTS - Option (required special ACR module)

The optional window **ACR Range Test** (Test zasięgu ACR-a) is used to display wireless detection devices within the operating range of the ACR-4001 Wireless Detector Adapter. This window is only available for the special version of the ACR adapter.

To use the **ACR Range Test** (Test zasięgu ACR-a) feature, enter the serial number of the appropriate ACR 4001 Adapter or drag the serial number with the mouse to the appropriate field, and then press the **Start** button.

Nr	Czas	Typ elem.	Nr fabryczny	Częstotliwość	Status	próby	Moc
1	09:32:55	DUR-4047	16 20 5C 60 25 25	868.15	20	08	-70
2	09:32:56	DUR-4047	16 20 5C 60 25 25	868.15	20	08	-70
3	09:33:18	DUR-4047	16 20 5C 60 25 25	868.15	20	08	-70
4	09:33:42	DUR-4047	16 20 # ff ff ff	868.15	20	00	brak połączenia
5	09:33:44	DUR-4047	16 20 # ff ff ff	868.15	20	01	-75
6	09:33:47	DUR-4047	16 20 # ff ff ff	868.15	20	02	-70
7	09:33:48	DUR-4047	16 20 0Y 00 00 ff	868.15	20	03	-75
8	09:33:51	DUR-4047	16 20 0Y 00 00 ff	868.15	20	04	-70
9	09:33:53	DUR-4047	16 20 0Y 00 00 ff	868.15	20	05	-75

The **Radio Elements in Range** (Elementy radiowe w zasięgu) tab shows all radio devices, their communication frequencies, the number of attempts and signal strength. Devices may be detected multiple times by the adapter.


The **Radio Element Status** (Stan elementu radiowego) tab shows each component only once with additional warnings related to the quality of the battery.

The **Stop** button stops the ACR reading and the **Reset** button clears windows.









TEST ZASIĘGU ACR-a

Numer fabryczny: 10 64 RC 00 02 97 Stop

Numer krótki: 4 Reset Zapisz do pliku

Typ elementu: ACR-4001 

ELEMENTY RADIOWE W ZASIĘGU **STAN ELEMENTU RADIOWEGO**

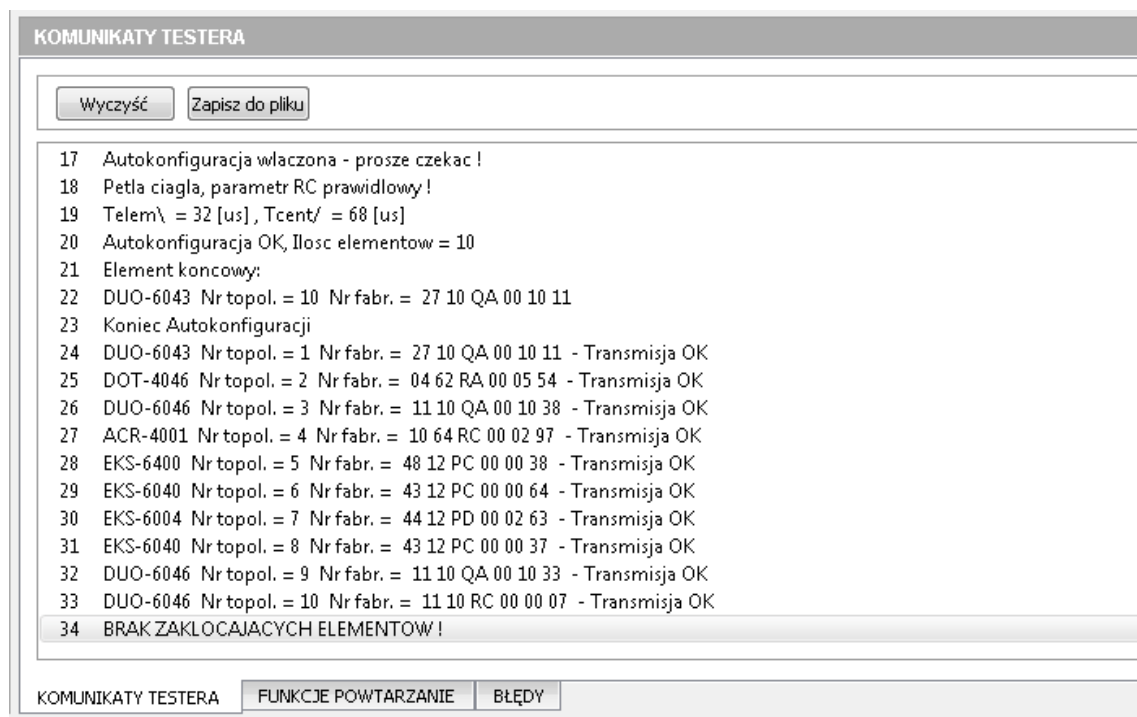
Nr	Typ		Numer fabryczny	MOC	UWAGI
1	DUR-4047		16 20 SC 60 25 25	 -70	0280 - słaba bateria - wyjęcie czujki z gniazda
2	DUR-4047		16 20 # ff ff ff	 -75	0380 - słaba bateria - wyjęcie czujki z gniazda
3	DUR-4047		16 20 0Y 00 00 ff	 -75	0280 - słaba bateria - wyjęcie czujki z gniazda
4	DUR-4047		16 20 SC 60 25 17	 -70	0280 - słaba bateria - wyjęcie czujki z gniazda

To change the frequency at which ACR is listening, change the operating mode in the *COMPONENT TESTS* (TESTY ELEMENTU) window:

- Mode 1 and 2: frequency pairs 868.15 and 869.850 (version 1.0)
or 867.70 and 868.95 (for new detectors)
- Modes 3 and 4: frequency pairs 868.45 and 869.525
- Modes 5 and 6: frequency pairs 865.70 and 866.70
- Modes 7 and 8: frequency pairs 866.00 and 867.00
- Modes 9 and 10: frequency pairs 866.30 and 867.30

15. TESTER MESSAGES

The Tester Messages (Komunikaty testera) window displays summarized temporary and final results from other windows. This window works as an add-on only. The entire testing log can be saved to a file.



16. Storage and transportation

The TLD-6000 Tester should be stored in closed rooms with no corrosive vapors and gases in the atmosphere, within the temperature range from 0°C to 40°C, and with the relative humidity below 80% at +35°C.

During storage, the device should not be exposed to direct sunlight or heat from heating devices.

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