

INTELLIGENT MESSEN!
MEASURE WITH INTELLIGENCE!

ecom[®]

English



OPERATION MANUAL

ecom[®] AK

Version
ecom-AK

Status Sep. 2021

Intended Use

The read-out head ecom-AK enables the recall of data made available by digital firings automats. Information like trouble sources, error history, flame signal and operation voltage are received by the ecom-AK as optical signal at the reset button of the firing automat and shown on the graphic display. In addition, the ecom-AK read-out head can be optionally connected to the PC to to read out data and to create documentation. The ecom-AK is able to identify the make and the model of the following firing automats:

Siemens-Landis & Staefa: LMG, LMO, LME

Honeywell-Satronic: Dxx, Dxx-N, SH, SH-N, SG, SG-N

(DKO 970, DKO 972, DKO 974, DKO 976, DKO 992, DKW 972, DKW 976, DMO 976, DIO 974, DIO 976, DKG 970, DKG 972, DLG 974, DLG 976, DMG 970, DMG 971, DMG 972, DMG 973, DMG 991, DVI 980, DVI 982, SH 11x, SH 21x, SH 12x, SH 23x, SG 11x, SG 51x, SG 13x, DKO 970-N, DKO 972-N, DKO 974-N, DKO 976-N, DKO 992-N, DKO 996-N, DKW 972-N, DKW 976-N, DMO 976-N, DIO 974-N, DIO 976-N, DKG 970-N, DKG 972-N, DLG 974-N, DLG 976-N, DMG 970-N, DMG 971-N, DMG 972-N, DMG 973-N, DMG 991-N, DVI 980-N, DVI 982-N, SH 11x-N, SH 21x-N, SH 12x-N, SH 23x-N, SG 11x-N, SG 51x-N, SG 13x-N)

Scope of Delivery

- ecom-AK
- Protective bag
- 2x 1,5 V AA Batteries

General Safety Instructions



WARNING

Hazard of Injury

Improper work on incinerators can cause injuries.

Work on incinerators may only be done by qualified specialists.



CAUTION

Damage of the Electricity

Moisture or frost can damage the electronics.

Do not store the unit in moist rooms or at sub-zero temperatures.



CAUTION

Malfunction of the Readout Process

Exposure to strong light can disturb the readout process.

Protect ecom-AK from strong light.

Device Description



1	Photo Diode	3	Housing	5	Setting Key
2	Housing Head	4	Display		

Set Language

1. Hold down the setting key until Language: English on the display appears.
2. Use the setting key to select the required language.

NOTICE

ecom-AK starts after about 5 s in the selected language.

Initiation/Measurement



CAUTION

Malfunction of the Readout Process

Exposure to strong light can disturb the readout process.
Protect ecom-AK from strong light.

Different Readout Modes According to Firing Automatic Type

Set firing automatic in diagnosis mode:

- Set firing automatic to diagnosis mode.

NOTICE

Applies only to Siemens burner controls!

Firing Automat in Operating Position:

- Press the reset button on the firing automat for < 3 s.

Firing Automat in Lockout Position:

- Press the reset button on the firing automat for < 3 s.
- Press the reset button again on the firing automat for < 3 s.

Readout

1. Set ecom-AK to the interference suppression button.
2. Enable ecom-AK by pressing the setting key.

NOTICE

With the Satronic or Siemens PC software, hold down the setting key until PC mode appears on the display.

3. ecom-AK searches for automat information.

NOTICE

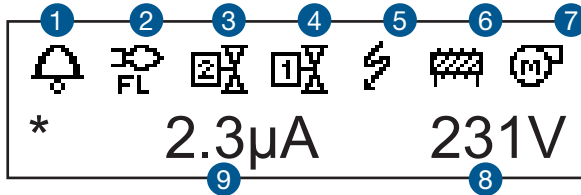
When using the AK PC software, the ecom-AK must not be started in PC mode.

4. ecom-AK switches off after 2 minutes if it does not detect any signal.

Display

Use the setting key to recall the data step by step:

1. Operating Status of the Burner



1	Error	4	Valve 1	7	Engine
2	Flame identified	5	Ignition	8	Operating Voltage
3	Valve 2	6	Oil Preheater	9	Flame Signal

2. Flame Signal

- current flame signal - minimum signal

3. Reserve safety time

- Difference between flame detection and end of safety time - Satronic automatic units only

4. Error

- Satronic: Display of the current and the last 2 errors.
Fault description, flame signal with operation-voltage at fault, time of fault shut-down are displayed in 3-second intervals.
- Siemens: Display of the current and last 5 faults, with number of burner starts when the fault occurred.

5. Statistics

- Satronic: Display Total number of faults, number of „extraneous light“ faults, number of „no flame after safety time“ faults, number of „flame failure“ faults, total number of burner starts, number of burner starts since resetting the service counter.
- Siemens: Total number of burner starts, number of burner starts since resetting the service counter.

6. Control Times of the Automat

NOTICE

The type and scope of the data vary according to the type and software version of the automatic burner control unit.

Switch-off

- Keep setting key pressed for 4 s
- If no key is pressed during operation, the display lighting is switched off after 10 minutes.
- The device switches off after 60 minutes.

Change Batteries

NOTICE

The two 1.5 V AA batteries must be replaced when the battery capacity indicator flashes.

1. Press the locking latches on the housing head inwards.
2. Pull off the housing head to the front.
3. Remove the circuit board.
4. Change batteries.
5. Reassemble ecom-AK in reverse order.

Connection with the PC

NOTICE

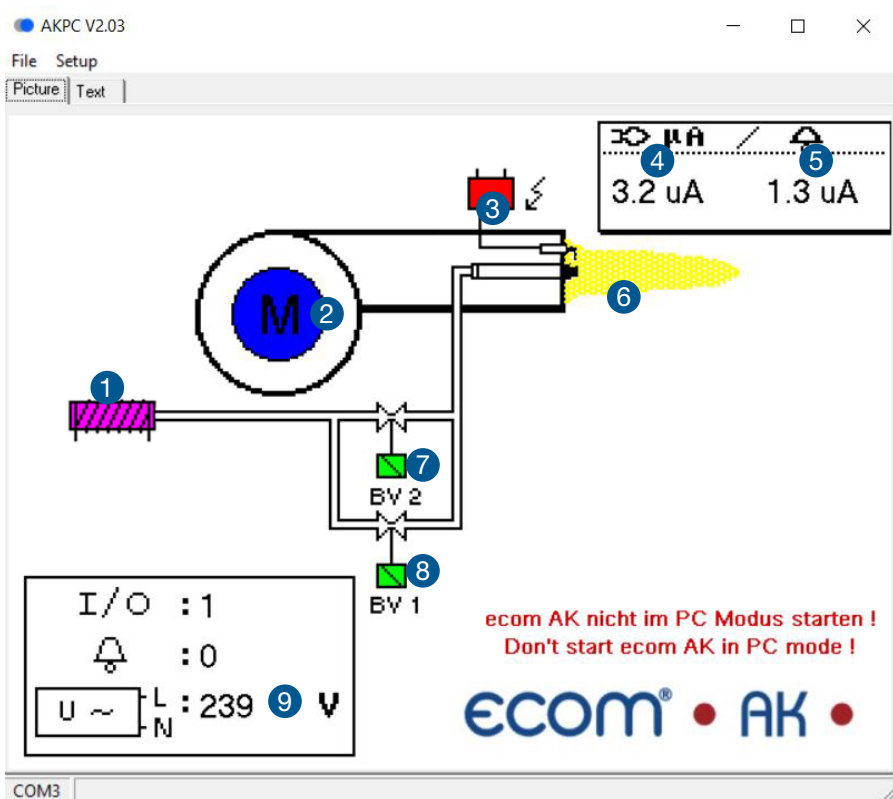
A special cable is required for the connection to the PC:

- PC interface RS232: data cable AK-PC or
- PC interface USB: Data cable AK-PC + adapter cable RS232-USB

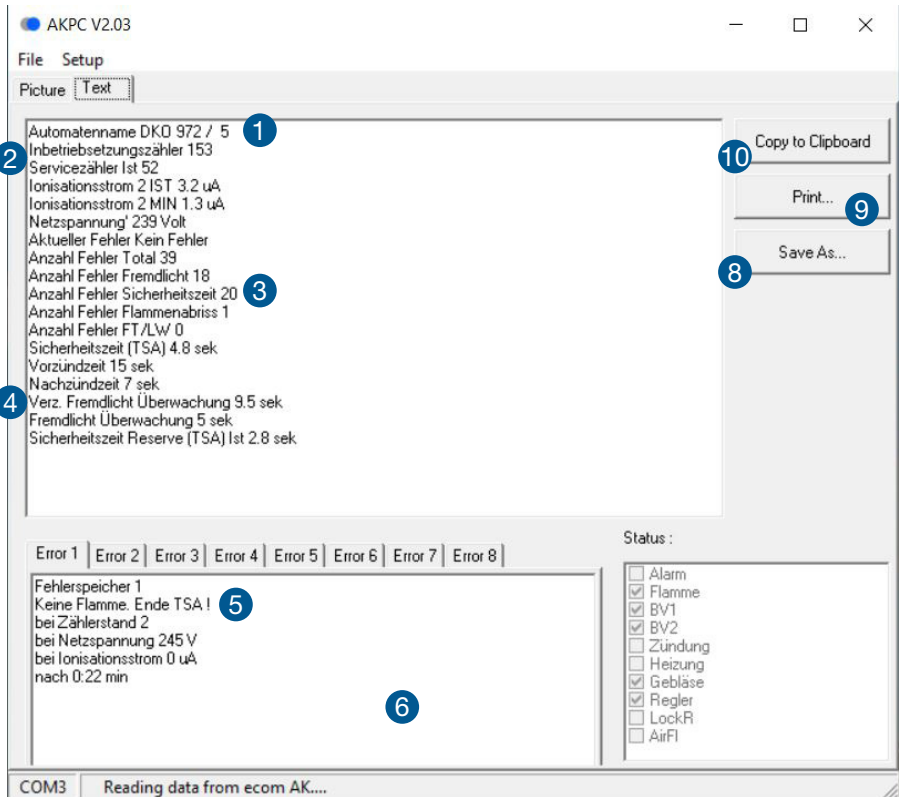
1. Start the programme with „Start“ → „Programmes >“ → „AKPC“.
2. Select COM port from the „Setup“ menu.
3. Select COM Port.
4. Confirm with „OK“.
5. Connect the ecom-AK to the PC via the connection cable.
6. Connect ecom-AK to the automatic burner control.
7. Switch on the ecom-AK.

NOTICE

The data of the automatic burner control are displayed on 2 pages in the software.



1	Oil preheater	4	Actual flame signal	7	Valve 2
2	Engine is running	5	Flame signal min	8	Valve 1
3	Ignition is active	6	Flame is detected	9	Operating voltage



1	Model designation	5	Current error	9	Print data
2	Total number of burner starts	6	Error history	10	Copy data to clipboard
3	Error statistics	7	Active burner components		
4	Control times firing automat	8	Save data to text file		

Technical Data

Power Supply	2x Rechargeable Battery Typ AA; 1.2 V or 2x Battery Typ AA; 1.5 V
Power Consumption	Approx. 100 mA
Storage Temperature	-20 °C – +50 °C
Operating Temperature	-20 °C – +50 °C
Size	88 mm x 41 mm x 32 mm

NOTICE

Subject to technical changes! (Status 09.2021)

FAQ

Connection to ecom-J2KNpro V3	Connection only possible with cable and not by radio.
Connection to ecom-EN3	Connection only possible with cable and not by radio.
Connection to ecom-D	Connection only possible with cable and not by radio.
Automatic burner control in Set diagnostic mode	Only necessary for Siemens automatic burner control units.

Maintenance

To ensure the accuracy of your measuring device, we recommend an annual inspection by an authorised ecom partner. In case of heavy use, shorter inspection intervals should be chosen – please contact your ecom partner.

Disposal



- Dispose of used batteries at the designated collection points.
- Dispose of packaging material in an environmentally friendly manner.
- Old devices must be disposed of in an environmentally friendly manner by an authorised centre.

NOTICE

On request we take back old appliances and dispose of them in an environmentally friendly way.

Consumables/Spare Parts

NOTICE

You can find consumables or spare parts in our webshop at www.shop.ecom.de.

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