

# Burn down transformer

## ATG 2



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# 1 ABOUT THIS MANUAL



## 1.1 Using this manual

This user manual contains all necessary information that is needed for the commissioning and operation of the described product.

- ▶ Read this user manual completely before operating the product for the first time.
- ▶ Consider this user manual to be a part of the product and store it in an easily accessible location.
- ▶ If this user manual is lost, please contact BAUR GmbH or your nearest BAUR representative (<http://www.baur.eu/baur-worldwide>).

## 1.2 Structure of safety instructions

The safety instructions in this user manual are presented as follows:

<b>Danger symbol</b> 	 <b>SIGNAL WORD</b>
	<b>Type of danger and its source</b> Possible consequences of violation. ▶ Measure to prevent the danger.

If a dangerous situation could arise at a specific step, the safety instruction is displayed immediately before this dangerous step and is shown as follows:




 **SIGNAL WORD**

**Type of danger and its source.** Possible consequences of violation.



1. Measure to prevent the danger.

### Danger levels


Signal words in the safety instructions specify the danger levels.

 <b>DANGER</b>	Will lead to severe injuries or death.
 <b>WARNING</b>	May lead to severe injuries or death.
 <b>CAUTION</b>	May lead to light to moderate injuries.
<b>NOTICE</b>	May lead to material damage.

### Danger symbols

	General danger
	Risk of electric shock

## 1.3 View settings

Symbol	Meaning
▶	You are prompted for an action.
1. 2. ...	Perform the actions in this sequence.
a. b. ...	If an operation consists of several operating steps, these are specified with "a, b, c". Perform the operating steps in this sequence.
1 2 ...	Numbering in the legend
▪	List
	Indicates further information on the topic in the corresponding user manuals.

## 2 FOR YOUR SAFETY

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All BAUR devices and systems are manufactured according to the state of the art and are safe to operate. The individual parts and the finished devices are subject to continuous testing by our qualified personnel as part of our quality assurance system. Each device and system is tested before delivery.

However, the operational safety and reliability in practice can be achieved only when all necessary measures have been taken. The responsible body<sup>1</sup> and operator<sup>2</sup> of the device or system are responsible for planning these measures and monitoring their implementation.

Make sure that the responsible body and persons working with the device or system have carefully read through and understood the user manual for the device or system, as well as the user manuals for all associated devices, before starting work.

The responsible body and operator of the device or system are responsible for any injuries or damage resulting from non-compliance with this user manual.

### 2.1 Intended use

The ATG 2 burn down transformer is used to reduce the impedance in cable faults in low- and medium-voltage networks. This converts high-resistive, difficult to locate and intermittent faults into low-resistive faults that are easy to locate with the Time Domain Reflectometry method.

The burn down transformer may not be used for telecommunication and data transmission cables.

If the device is used without observing this condition, safe operation cannot be guaranteed. The operator or user is liable for any damage to persons and property resulting from incorrect operation.

Proper use also includes

- Compliance with all instructions in this user manual,
- Compliance with the technical data and connection requirements given on the rating plate and in the user manual,
- Compliance with the inspection and maintenance tasks.

### 2.2 Instructions for the operator

The product may be operated only by authorised and trained electrical engineers. An electrical engineer is a person who, owing to his professional education (electrical engineering), knowledge, experience and familiarity with the applicable standards and regulations, can assess the tasks assigned to him and detect possible dangers.

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<sup>1</sup> Responsible body is the person or group that is responsible for the safe operation of the device and its maintenance (EN 61010-1, 3.5.12).

<sup>2</sup> Operator is the person who uses the device for its intended purpose (according to the definition of user in compliance with EN 61010-1, 3.5.11).

In addition, the operator must have:

- Knowledge of the technical equipment and operation of the product
- Knowledge of the testing and measurement procedures
- Knowledge of plant engineering (cable types, switchgear, etc.).

## 2.3 Avoiding dangers, taking safety measures

- ▶ When installing the testing system and operating the ATG 2 observe the following regulations and guidelines:
  - Accident prevention and environmental protection regulations applicable for your country
  - Safety instructions and regulations of the country where ATG 2 is being used (according to the latest version)
  - EU/CENELEC countries: EN 50191 *Erection and operation of electrical test equipment*  
Other countries: The standard for erection and operation of electric test equipment applicable for your country
  - EU/CENELEC countries: EN 50110 *Operation of electrical installations*  
Other countries: The standards for operating electrical installations applicable in your country
  - If necessary, other national and international standards and guidelines in the latest applicable version
  - Local safety and accident prevention regulations
  - Employers' liability insurance association regulations (if any)

### 2.3.1 The device may only be operated if it is in a technically safe condition

Safety, function and availability depend on the proper condition of the device.

- ▶ Operate the device only in a technically perfect condition.
- ▶ In case of damage and malfunction, immediately stop the device, mark it accordingly and have the faults rectified by appropriately qualified and authorised personnel without delay.
- ▶ Comply with the inspection and maintenance conditions.
- ▶ Use only accessories and original spare parts recommended by BAUR. The use of spare parts, accessories and special fittings that have not been tested and approved by BAUR could adversely affect the safety, function and characteristics of the device.

### 2.3.2 Checking and maintaining the safety devices

The safety devices must be inspected regularly for proper condition and function. The ATG 2 must not be operated in the case of defects or non-functional safety devices.

The safety devices must not be changed, bridged or switched off.



### 2.3.3 No operation during condensation

Condensation can form in devices and systems due to temperature fluctuations and high air humidity, which in some components can result in leakage currents, flashovers and short-circuits.

Maximum danger arises when relatively high air humidity and temperature fluctuations occur in a device consecutively, which is the case when storing the system or device in an unheated room or when placed outdoors, for example. When the system or device is then exposed to a high ambient temperature, the cold device surfaces cool the air in the immediate vicinity, which leads to formation of condensation even inside the device.

During this process, two factors are crucial:

- The higher the relative air humidity, the faster the dew point is reached and water is condensed.
- The higher the temperature difference between the surfaces and the ambient air, the stronger the tendency for condensation.
- ▶ Always prevent condensation in devices. Temper the device and system before and during the measurements so that no condensation occurs.

### 2.3.4 No operation in areas with risk of explosion and fire

Measurements in direct contact with water, in environments with explosive gases and in areas with fire risks are not permitted. Possible danger areas include e.g. chemical factories, refineries, paint factories, paint shops, cleaning plants, mills and stores of milled products, tank and loading plants for combustible gases, liquids and solid matter.

### 2.3.5 Dangers when working with high voltage



When performing tests and measurements with the system, dangerous - at times a very high - voltage is generated that is fed to the test object via an HV connection cable.



Personnel need to pay special attention and must be very careful while working with high electric voltage.

Commissioning and operation of the system are permitted only in compliance with the EN 50110 and EN 50191 (EU/CENELEC countries) or with standards applicable in your country.

#### **Observe 5 safety rules**

- ▶ Comply with the following safety rules before beginning tasks in and on the electrical plant:
  1. Disconnect the test object.
  2. Secure against re-connection.
  3. Verify absence of operating voltage.
  4. Earth and short all phases.
  5. Provide protection against adjacent live parts.

	<div data-bbox="470 280 1327 369"> <b>DANGER</b></div> <div data-bbox="470 369 1327 1249"><p><b>High electrical voltage</b></p><p>Danger to life or risk of injury due to electric shock.</p><ul style="list-style-type: none"><li>▶ Before commencing work, the operator must assess the risks for the specific working conditions. Protective measures are based on the risk assessment and must be followed at the workplace.</li><li>▶ Connect the system as described in this user manual.</li><li>▶ Pay particular attention to ensuring the test object and system are earthed correctly.</li><li>▶ Observe the warning and safety signs on the system. Always check whether the warning signs are available and are legible.</li><li>▶ Never put the safety devices out of operation. It is forbidden to bypass the safety devices.</li><li>▶ Ensure that adjacent live parts are secured against accidental contact and flashovers with suitable covers (insulation mats, insulating safety plates).</li><li>▶ Cordon off all metal parts in the area of the test object terminals (connection point and far end). Insulate and earth the metal parts to avoid dangerous charges.</li></ul><p>The test object may still be live and carry dangerous voltage after a measurement, even after the system or device has been switched off.</p><ul style="list-style-type: none"><li>▶ Before removing the safety precautions, discharge, earth and short circuit all live parts.</li></ul></div>
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	<div data-bbox="470 1339 1326 1429"> <b>DANGER</b></div> <div data-bbox="470 1429 1326 1792"><p><b>Arcing fault when establishing a connection</b></p><p>Danger of burn injuries and electro-ophthalmia due to arcing fault.</p><ul style="list-style-type: none"><li>▶ Use suitable personal protective equipment to protect against arcing faults.</li><li>▶ Cover the adjacent live parts with an insulating material.</li><li>▶ Use only undamaged connection cables.</li><li>▶ Secure the connection points and far end of the test object.</li><li>▶ Use special locking devices to lock connection points.</li></ul></div>
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### 2.3.6 Guaranteeing immediate measures in an emergency

The device may be operated only if a second person with visual and audio contact to the tester is present and is in the position to detect possible dangers and to act immediately and properly.

With an external emergency off unit (option), it is possible to install the trigger for the emergency off outside the testing system so that it can be reached rapidly in case of danger.

## 2.4 Special personal protective equipment

Personal protective equipment based on the risk assessment for the relevant working conditions is part of the ATG 2 safety concept.

- ▶ Observe the national safety regulations and your company's working and operating instructions.

Dependent on the conditions of the work place, use the following protective equipment:

Protection against electrostatic charging, crushing, slipping and other accidents:	<ul style="list-style-type: none"> <li>▪ Safety footwear</li> </ul>
Protection against electrical hazards (arcing fault):	<ul style="list-style-type: none"> <li>▪ Certified safety clothing</li> <li>▪ Hard hat with visor</li> <li>▪ Insulating protective gloves</li> <li>▪ LV HRC fuse handle with sleeve</li> </ul>
Protection against noise:	<ul style="list-style-type: none"> <li>▪ Ear protection</li> </ul>
Protection against dangers from road traffic:	<ul style="list-style-type: none"> <li>▪ High visibility vest according to EN 471 (Protection class 2) or according to the applicable standards in your country for high visibility clothing for commercial use. <b>Important:</b> No high visibility vest during tasks with risk of arcs!</li> </ul>
Hand protection:	<ul style="list-style-type: none"> <li>▪ Safety gloves</li> </ul>

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## 3 PRODUCT INFORMATION

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### 3.1 Layout and function

The ATG 2 burn down transformer is used to reduce the impedance in cable faults in low- and medium-voltage networks. This converts high-resistive, difficult to locate and intermittent faults into low-resistive faults that are easy to locate with the Time Domain Reflectometry method.

The incrementally variable maximum output voltage permits individual adjustment to the fault situation in question. After the “ignition” of the fault, the burn down transformer is in burn mode. The current can be increased and the output voltage gradually reduced.

The ATG 2 burn down transformer has an internal automatic discharge device and the option of earthing the test object. The controller also includes the necessary safety circuits for the connection of an external emergency off unit. The burn down transformer is protected against overtemperature caused by continuous operation.

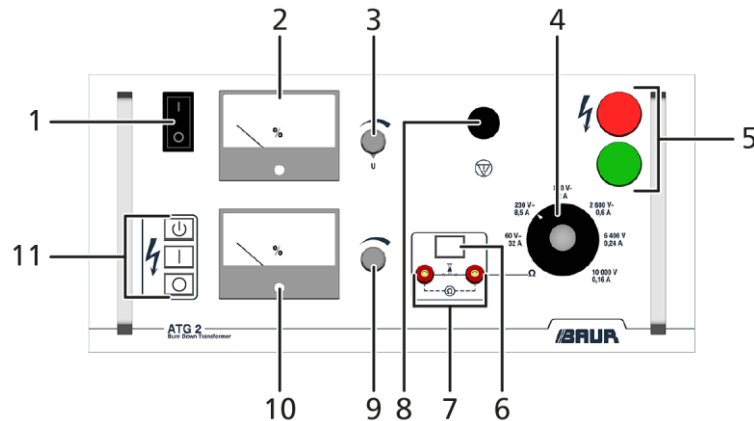
The front panel contains all operating and display elements plus the connections for an external ohmmeter.




#### High voltage generation

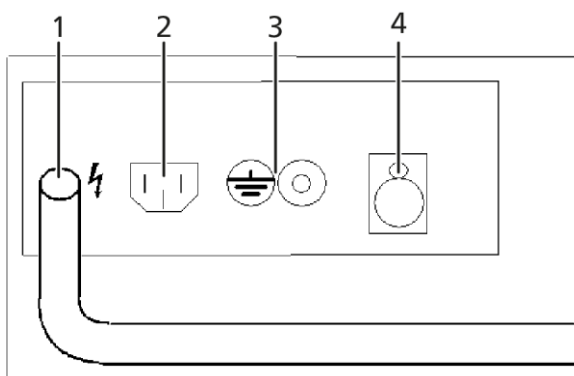
The mains voltage is fed to the primary winding of the HV transformer via phase-angle control. On the secondary side, the HV transformer has a high voltage winding with tapping points. The outputs from the high-voltage winding are fed to a high-voltage switch either directly or via one-way rectification. Depending upon its position, different maximum voltages and currents are available at the HV output, which can also be limited.

## 3.2 Full illustration

### Control panel



No.	Element	Function
1	On/Off switch	Is used to switch the device on and off  The On/Off switch is designed as an overcurrent protection switch that is triggered thermally.
2	Voltage indicator	Displays the output voltage as a percentage of the maximum voltage range
3	Potentiometer for voltage limitation incl. zero locking	
4	Range selector switch for voltage steps	
5	Indicator lights	Display the operating state of the device: <ul style="list-style-type: none"> <li>Green: <i>Ready for operation</i></li> <li>Red: <i>Ready to switch on, In operation</i></li> </ul>
6	Key to activate resistance measurement	Used to activate the resistance measurement with an external ohmmeter
7	Port for external ohmmeter	Used to connect an external ohmmeter  The connection sockets are protected from each other by a surge protective device (90 V). Only ohmmeters that use a voltage source of max. 60 V can be connected.
8	Emergency off button	Puts the device into the safe <i>Ready for operation</i> operating state in the event of danger.  The emergency off button is equipped with a key lock to protect against restart, unauthorised start-up, and unauthorised or unintentional operation.
9	Potentiometer for current limitation	
10	Current indicator	Displays the output current as a percentage of the maximum current range
11	 key	Puts the device into the <i>Ready to switch on</i> operating state.
	 key	Puts the device into the <i>In operation</i> operating state.
	 key	Deactivates the high voltage release and puts the device into the <i>Ready for operation</i> operating state

**Rear view**

- |   |  |
|---|--|
| 1 | Port for the external emergency off unit |
| 2 | Protective earthing connection           |
| 3 | HV connection cable                      |
| 4 | Mains connection                         |

### 3.3 Safety devices and accessories

**Internal discharge unit**

The ATG 2 burn down transformer has an internal discharge unit and an internal earthing option (60 V winding). The discharge unit is designed for a maximum discharge energy of 500 J.

**Emergency off button**

The emergency off button is located on the device control panel and is equipped with key lock for protection against unauthorised startup and unauthorised use or operation.

## 4 TECHNICAL DATA

Power supply	200 – 253 V, 50/60 Hz		Load capacity	Max. 10 $\mu$ F
Option	100 – 130 V, 50/60 Hz with external autotransformer		Output voltage DC	Max. 10 kV
Max. power consumption	2300 VA (in short-circuit)		Internal discharging resistance	100 kOhm
Output current AC	32 A <sub>rms</sub>	at AC 60 V	Ambient temperature (operational)	-20 °C to +55 °C
	8.5 A <sub>rms</sub>	at AC 230 V	Storage temperature	-30 °C to +70 °C
Output current DC	2.0 A	at DC 800 V	Dimensions (W x H x D)	502 x 255 x 390 mm
	0.6 A	at DC 2.6 kV	Weight	Approx. 41 kg
	0.24 A	at DC 6.4 kV		
	0.16 A	at DC 10 kV		

## 5 COMMISSIONING

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- ▶ When operating the ATG 2, observe the following rules and guidelines:
  - Accident prevention and environment protection rules applicable for your country
  - Safety instructions and regulations of the country where the ATG 2 is being used (according to the latest version)
  - Any relevant national and international standards and guidelines in the latest applicable version:
    - Local safety and accident prevention regulations
    - Employers' liability insurance association regulations (if any)

### 5.1 Checks to perform before commissioning

1. Only operate the ATG 2 in a technically perfect condition.
2. Check the ATG 2 and mechanical connections for damage.
3. Check electrical connections and connection cables for damage.  
Use only undamaged connection cables.
4. Check the safety devices regularly for proper condition and function.

**Note:** Cross-section and insulation capacity of the cable system must be in proportion to the voltage level and burn current as otherwise the parts of the system that are still intact may be overloaded.

### 5.2 Ensuring there is no voltage at the work place

Before connecting the test object follow the 5 safety rules:

1. Disconnect the test object.
2. Secure against re-connection.
3. Verify absence of operating voltage.
4. Provide protection against adjacent live parts.
5. Earth and short all phases.

**Note:**

- ▶ If the **cable sheath is not earthed**, establish a short earth connection to the station earth. The station earth is the neutral point of the earth connections.
- ▶ The earthing conductor should be as short as possible and show low impedance. Use a copper **earthing conductor with a cross-section of min. 16 mm<sup>2</sup>**.



## 5.3 Connecting the device

### Prerequisite

The workplace is de-energised.

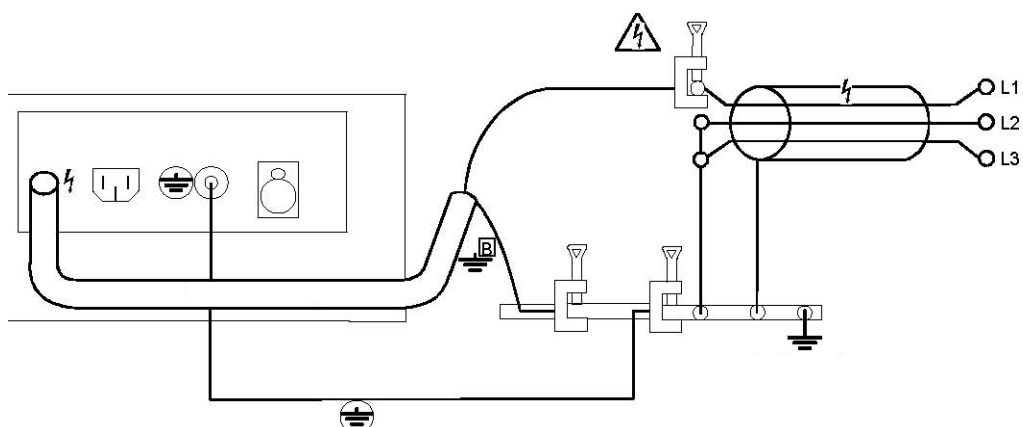
Further information: Chapter *For your safety* (on page 7)

### Procedure

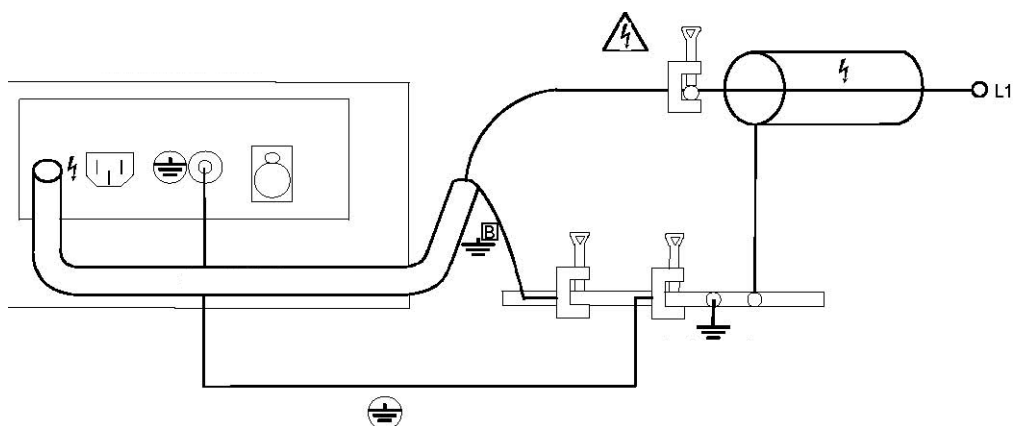
1. Connect the protective earthing connection on the back to the protective earth of the cable station.  
The earth cable (copper) must be as short as possible and of low impedance (minimum cross-section 16 mm<sup>2</sup>).
2. The HV connection cable screen is used for the operational earthing and completes the operating circuit. Connect the screen of the HV connection cable to the station earth.
3. Connect the phase of the HV connection cable to the faulty phase of the test object.
4. In the event of cable faults between two phases, one phase should be earthed.  
**Note:** Particular care must be taken to ensure that all connections are as low-resistive as possible: poor connections can lead to fusing and contact erosion.
5. If you are not using an external emergency off unit (option), ensure that the jumper plug is inserted in the port for the external emergency off unit.
6. If you are using an external emergency off unit: Connect the external emergency off unit (optional):
  - a. Mount an external emergency off unit so that it is easy to reach.
  - b. Remove the jumper plug from the port for the external emergency off unit.
  - c. Connect the external emergency off unit to the port for the external emergency off unit.
7. Establish the voltage supply.  
Connect the mains connection to the mains supply according to the specifications on the rating plate.  
Note that the mains supply earth is not isolated from the station earth.

### 5.3.1 Connection examples

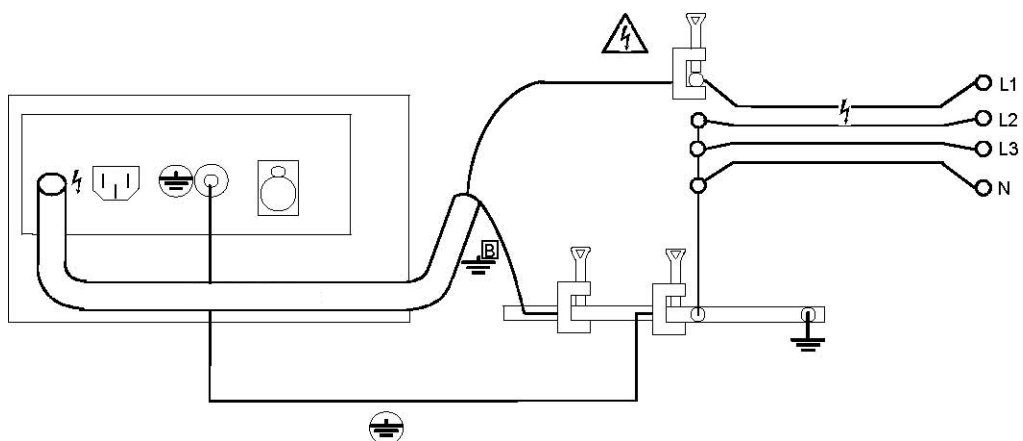
#### 3-phase shielded cable



#### 1-phase shielded cable



#### 3-phase unshielded cable



### 5.3.2 Isolated operation with emergency power generator

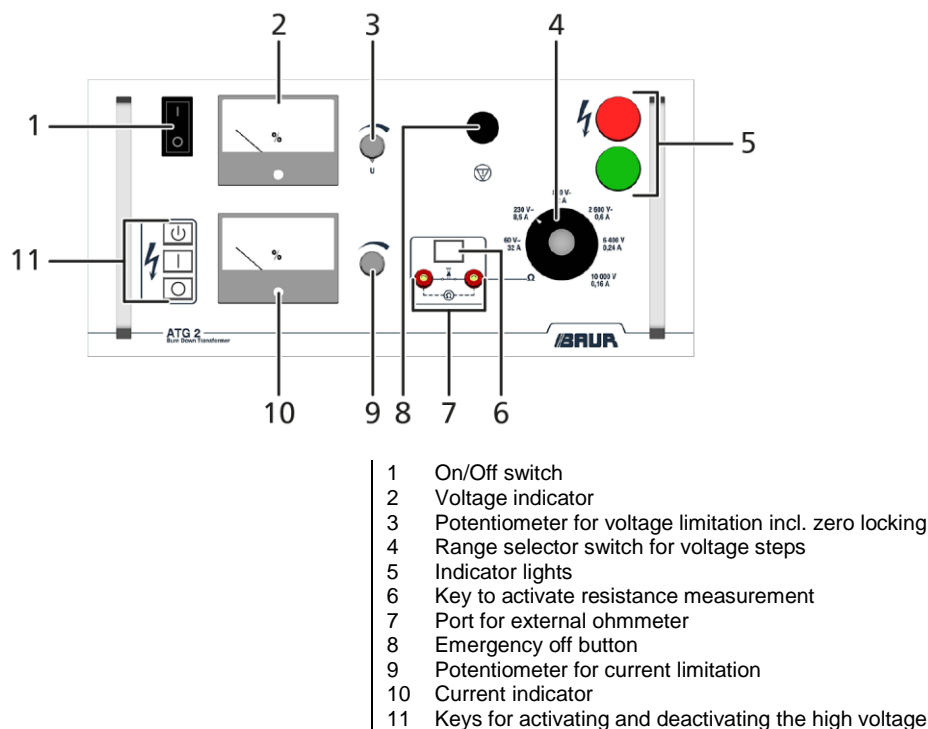
The emergency power generator must ensure that the power supply to the device is maintained at the maximum power consumption of the device, without the mains voltage or frequency collapsing significantly due to the load. Otherwise, the device may shut down automatically.

Further information: Chapter *Technical data* (on page 15)

- ▶ Set the voltage on the emergency power generator to the mains voltage shown on the rating plate and connect the device.

**Note:** It is particularly important to ensure that the stand-alone network is not floating, but is connected to the protective earth.

## 5.4 Switching on the device, switching on the high voltage



### Prerequisite

The device is properly connected.


### Procedure

1. Set the range selector switch (4) to the desired output voltage.

**Recommendation:** Select a DC voltage step.

2. Turn the voltage limitation potentiometer (3) all the way round to the left until it engages in the zero position.
3. Switch on the device with the On/Off switch (1).

The device is in the *Ready for operation* operating state. The green indicator light comes on.

4. Press the  key.


The device only switches into the *Ready to switch on* operating state if

- a. the emergency off buttons on the operating unit and external emergency off unit (option) have not been activated.
- b. the jumper plug is plugged into the back of the device if the external emergency off unit is not connected.
- c. the overtemperature protection has not tripped.

If the device is used continuously at full load for extended periods, the unit may get hot, causing the overtemperature protection to trip. The device then switches off automatically. You will not be able to switch the device back until after a cooling-down phase. Until the permissible operating temperature has been reached, a buzzing tone will sound when you try to put the ATG 2 back into the *Ready to switch on* state.

When the device switches into the *Ready to switch on* operating state,

- the green indicator light goes out
- the red indicator light comes on
- the discharge unit no longer acts on the HV output.

5. Press the  key.

The device is in the *In operation* operating state. The  key illuminates.

**Note:** The device is only set to the *In operation* operating state if the potentiometer for voltage limitation (3) is engaged in the zero position.

You can switch the range selector switch to the desired position even under voltage in the *In operation* operating state.

## 5.5 Operating modes

### 5.5.1 Burn

You can operate the ATG 2 with different maximum voltages by changing the position of the range selector switch. Current and voltage can be limited separately. A high-resistive fault can thus be ignited by gradually increasing the voltage using the range selector switch and potentiometer, and then “burnt” to a low-resistive fault.

- ▶ To increase the burn current: reduce the voltage.
- ▶ To limit the burn current: operate the current limitation potentiometer.

**Recommendation:** Start the ignition sequence with DC voltage.

### 5.5.2 Resistance measurement

The resistance measurement allows you to measure the resistance of the cable fault using an external ohmmeter.

Based on the measurement result, you can decide whether further “burning” of the fault is necessary for fault location.

#### **NOTICE**



##### **The device may be damaged by excessive voltage**

- ▶ Only connect ohmmeters that use a voltage source of max. 60 V for measurement.

The connection sockets for external ohmmeters are protected by a surge protective device (90 V).

1. Set the range selector switch (4) to the  $\Omega$  position.  
The device switches into the *Ready for operation* operating state.
2. Connect the ohmmeter to the connection socket.
3. Press and hold down the key to activate the resistance measurement (6).  
The discharge unit opens and the external ohmmeter measures the fault resistance.  
Release the key to reactivate the discharge unit.

## 5.6 Switch off device

1. Press the  key.  
This puts the device into the *Ready for operation* operating state. The  key goes out, the red indicator light goes out and the green indicator light comes on.
2. Set the range selector switch (4) to the **60 V~** position.
3. Switch off the device with the On/Off switch (1).  
The discharge unit acts on the connected HV connection cable.



#### **DANGER**



**Dangerous voltage on the test object and other live plant parts.** Danger to life, risk of injury from high electric voltage.

The discharge unit is designed for a maximum energy of 500 J. After the discharge process has been completed, the capacitors might still carry charge.

4. Before touching the test object, discharge, earth and short it: at the connection point and at the far end.  
You may touch the plant parts that were under voltage only if they are visibly earthed and short-circuited.

## 6 SWITCHING OFF THE SYSTEM IN THE EVENT OF AN EMERGENCY



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1. In the event of a fault or an emergency, immediately press the emergency off button.  
This puts the device into the safe *Ready for operation* operating state.  
The  key goes out, the red indicator light goes out and the green indicator light comes on.
2. Set the range selector switch (4) to the **60 V~** position.
3. To protect the device against unauthorised operation, remove the key.
4. To put the device back into the *Ready to switch on* operating state, unlock the emergency off button with the key and press the  button.

## 7 DISCHARGING AND EARTHING THE TEST OBJECT

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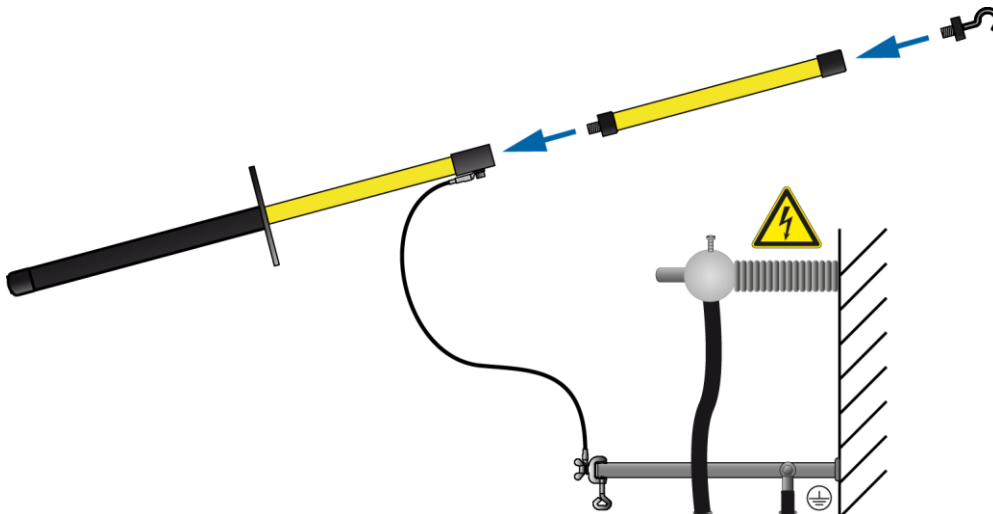
On completion of cable testing or measurement the test object still carries a dangerous voltage.

	<div data-bbox="472 591 1331 680"> <b>DANGER</b></div> <p data-bbox="472 696 895 730"><b>Dangerous voltage in test object.</b></p> <p data-bbox="472 743 943 777">Danger of electric shock or risk of injury</p> <ul data-bbox="480 790 1315 1149" style="list-style-type: none"><li>▶ <b>Before touching, discharge, earth and short-circuit:</b> The test object at the connection point and at the far end.</li><li>▶ You may touch the plant parts that were under voltage only if they are visibly earthed and short-circuited.</li><li>▶ Connect the discharge and earth rod correctly to the station earth.</li><li>▶ Only use the discharge and earth rod if its surface is clean and dry.</li><li>▶ Hold the discharge and earth rod only at the handles!</li><li>▶ Observe the minimum discharge period in accordance with the capacitance of the test object.</li></ul>
---	---

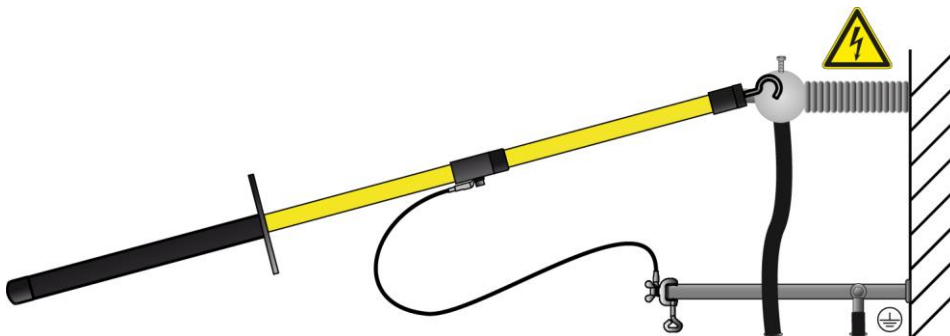
## 7.1 Discharging the test object

	<b>DANGER</b>
<b>Dangerous voltage in test object</b>	
Danger to life or risk of injury due to electric shock or electric arcs.	
<ul style="list-style-type: none"><li>▶ Use suitable personal protective equipment against electric shocks and arcing faults.</li><li>▶ Keep a distance of at least 50 cm from the protective earthing cable of the discharge and earth rod.</li></ul>	

1. If not yet connected, connect the earth cable of the protective earthing cable of the discharge and earth rod to the station earth.
2. Assemble the discharge rod:
  - a. Screw the hook onto the discharge part.
  - b. Screw the discharge part onto the handle.





3. Use the black handle to hold the discharge and earth rod and make contact with the test object by touching it with the tip of the discharge and earth rod.



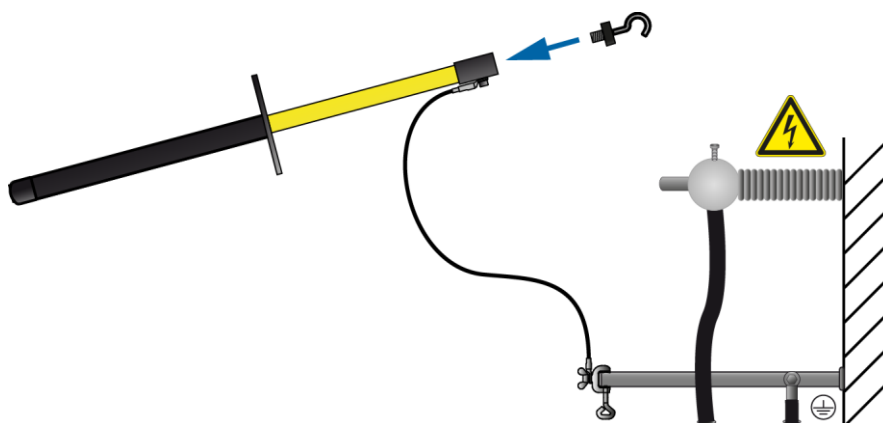
4. Observe the minimum discharge period in accordance with the capacitance of the test object.



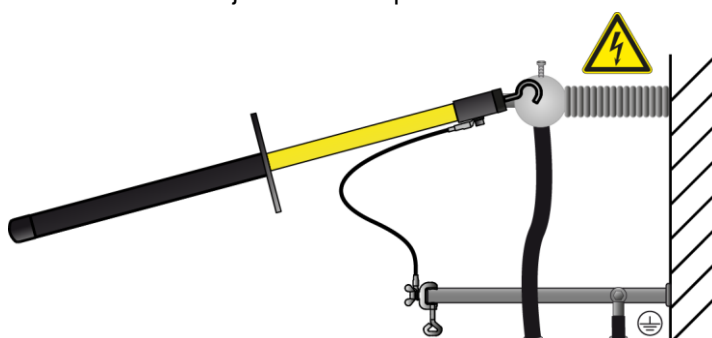
## 7.2 Earthing the test object

	<div data-bbox="472 360 678 416"> <b>DANGER</b></div> <div data-bbox="472 450 890 483"><b>Dangerous voltage in test object</b></div> <div data-bbox="472 499 1256 530">Danger to life or risk of injury due to electric shock or electric arcs.</div> <div data-bbox="480 546 1315 680"><ul style="list-style-type: none"><li>▶ Use suitable personal protective equipment against electric shocks and arcing faults.</li><li>▶ Keep a distance of at least 50 cm from the protective earthing cable of the discharge and earth rod.</li></ul></div>
---	---

1. If not yet connected, connect the earth cable of the protective earthing cable of the discharge and earth rod to the station earth.
2. Assemble the earth rod: Screw the hook into the handle.



3. Contact the test object with the tip of the earth rod.



4. Immediately after earthing, connect the earthing and short-circuit equipment to the test object.

## 8 MAINTENANCE

### 8.1 Special maintenance instructions

#### **NOTICE**

##### **Damage to devices due to improper handling**

The user is liable for any damage caused due to improper maintenance or care.

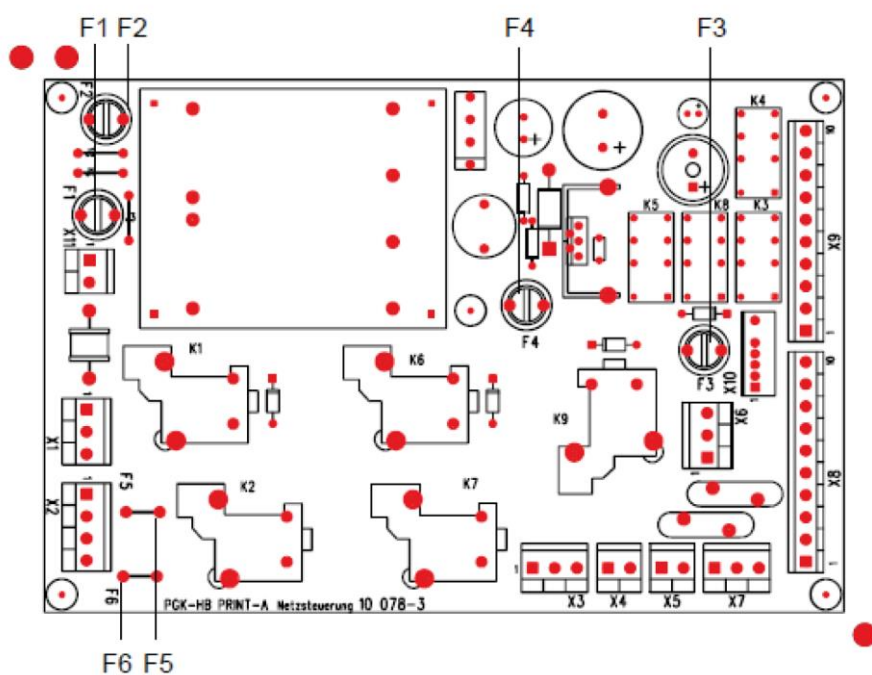
- ▶ Only personnel trained and authorised by BAUR may carry out maintenance tasks.

### 8.2 Fuse types

The internal fuses F1, F2, F3 and F4 may only be replaced by personnel trained and authorised by BAUR.

1. Disconnect the device from the mains and the test object.
2. Set the range selector switch (4) to the **60 V~** position.
3. Undo the fastening screws of the 19" plug-in unit and withdraw the unit.
4. Change the fuses according to the data in the fuse table.

#### **PCB A**



Order the fuses from BAUR GmbH or your nearest BAUR representative.

Description	Value	Size	Description
F1, F2	0.16 AT	Ø 5 x 20 mm	PCB A mains transformer primary and fan
F3, F4	2 AF	Ø 5 x 20 mm	PCB A + 12 V controller
F5, F6	3.15 AT	Ø 5 x 20 mm	PCB A without function
F7	0.15 AT	Ø 5 x 20 mm	Mains transformer primary controller
(S4, F10)	16 AT		On/Off switch front panel

### 8.3 Testing the discharge unit

The functionality of the discharge unit is tested by a resistance measurement. The measured discharge resistance must be 100 kΩ (±10 %).

- ▶ Check the discharge unit works correctly every 6 months or as required.

#### Prerequisite

The device is switched off.

**Note:** Residual charge in the surge capacitors and the thermal heating of the resistors affect the resistance measurement. You should therefore check the discharge unit before working with the burn down transformer.

#### Procedure

1. Set the range selector switch (4) to the Ω position.
2. Connect the ohmmeter to the connection socket.
3. Press the key to activate the resistance measurement.

The resistance must be 100 kΩ. If the resistance deviates from 100 kΩ by more than 10%, contact your nearest BAUR representative (<http://www.baur.eu/baur-worldwide>).

## 9 CLEANING

### NOTICE

#### Damage to the device may be caused by using the wrong cleaning agents

- ▶ Do not use any abrasive, corrosive cleaning agents or strong solvents.
- ▶ Ensure material compatibility.
- ▶ Do not clean the product with acetone or thinner.
- ▶ Never clean electrical devices with water.

#### Cleaning the device surfaces and connection cable

1. Clean the device surfaces and connection cable with mild detergent and a lint-free cloth.
2. **NOTICE!** Damage to device due to leaking fluids. Do not allow liquids to leak into devices.

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## 10 TRANSPORTATION AND STORAGE

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### 10.1 Transportation

During transport or if you are sending the ATG 2 to BAUR GmbH, a BAUR representative or to the technical service for repairs, observe the following:

- ▶ **NOTICE!** Damage to devices due to improper transport. **Transport ATG 2 only in vertical position.**
- ▶ During transport, comply with the ambient conditions specified in the technical data of the product. The technical data is given in the corresponding section of this user manual.
- ▶ Protect ATG 2 against strong vibrations.
- ▶ Protect ATG 2 against humidity.

The device is despatched on wooden pallets in robust cardboard packaging. If the device is not used straight away, always store it somewhere dry in a closed box.

### 10.2 Storage

- ▶ Store the device so that it always remains in an upright position at all times.
- ▶ During storage, comply with the ambient conditions specified in the technical data of the product. Information on the technical data is given in the corresponding section of this user manual.
- ▶ Protect the device against humidity.
- ▶ Protect the device against unauthorised access.

## 11 WARRANTY AND AFTER SALES

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### Warranty

For warranty claims, please contact BAUR GmbH or your local BAUR representative (<http://www.baur.eu/baur-worldwide>). Warranty is cancelled in case of misuse. Wear parts are excluded from the warranty.

### After Sales

For questions contact BAUR GmbH or your BAUR representative (<http://www.baur.eu/baur-worldwide>).



BAUR GmbH

Raiffeisenstraße 8  
6832 Sulz / Austria  
[service@baur.at](mailto:service@baur.at)  
[www.baur.eu](http://www.baur.eu)

## 12 DISPOSAL

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The final decommissioning and disposal of the device must be carried out in compliance with country-specific laws, regulations and standards.

Device components do not belong in the domestic waste.

- ▶ Dispose of electrical device components in accordance with the applicable national regulations.
- ▶ Dispose of the various device components in an environmentally friendly manner and in accordance with the applicable national regulations.

## 13 STANDARD DELIVERY AND OPTIONS

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### Standard delivery includes

- BAUR burn down transformer ATG 2, including:
  - HV connection cable, 3 m, fix mounted
  - Mains supply cord, 2.5 m
  - Earth cable, 3 m, with earthing clamp
  - User manual

### Options

- Hinged stand, height 5 RU (222 mm), for 19" unit
- Discharge and earth rod GDR 40-250
- Remote emergency stop unit with signal lamps, incl. connection cable, 25 m
- Remote emergency stop unit with signal lamps, incl. connection cable, 50 m
- Auto transformer external, 110/230 V; 3.0 kVA

## 14 DECLARATION OF CONFORMITY

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We



BAUR GmbH  
Raiffeisenstraße 8  
6832 Sulz / Austria  
headoffice@baur.at  
www.baur.eu

declare, under our sole responsibility, that the BAUR product

**BAUR Burn down transformer ATG 2**

to which this declaration refers, conforms to the following standards or standard documents:

- Low Voltage Directive 2014/35/EC  
EN 61010-1:2010  
EN 50191:2010
- EMC Directive 2014/30/EU  
EN 55011:2009 + A1:2010  
EN 61000-4-2:2009  
EN 61000-4-4:2012
- Environmental testing  
EN 60068-2-ff

Signed:

Torsten Berth, Technical Director  
Dr. Eberhard Paulus, Director QM/QS

Sulz, 14/12/2015

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