

OPERATING INSTRUCTIONS

MTS Random Selection Generator DZG-T

Desktop unit for workplace spot checks



RED / GREEN

clear result indication

0 - 80 %

adjustable RED probability

1 - 60 s

adjustable signal duration

Quick start

Connect the power supply, wait for the brief start-up self-test, then trigger the random selection using the metal pushbutton.

Read these instructions completely before commissioning and keep them for future reference.

1. Intended use

The DZG-T is a microcontroller-controlled random selection generator for commercial spot-check and inspection procedures. When the pushbutton is pressed, the device generates a RED/GREEN decision. The selected RED probability determines the likelihood of a RED result.

- Typical applications: employee and bag checks, person and vehicle checks, plant security, gatehouse, warehouse, shipping and goods dispatch.
- The device performs only the random selection. The operator determines which organisational action follows a RED or GREEN result.
- The operator is responsible for ensuring that the specific inspection procedure is organisationally and legally permissible.
- The DZG-T is not intended for emergency-stop, fire-protection, machine-control or other safety-related control functions.

BEFORE OPERATION

2. Safety instructions

Mains voltage

The device itself operates at 12 V DC. Mains voltage is present only at the external plug-in power supply. Do not open the power supply and do not continue using it if it is damaged.

- Use only in dry indoor areas. Protect the device and power supply from moisture, condensation and direct exposure to water.
- Observe the permissible operating temperature. Do not use the device in potentially explosive atmospheres or in the presence of aggressive vapours that may damage materials.
- Before opening the housing, first disconnect the power supply from the mains and then from the device.
- When the device is open, operate only the designated slide switches. Avoid touching the circuit board and electronic components.
- Repairs, soldering work, wiring modifications and other technical interventions must be carried out only by MTS-electronic or appropriately qualified personnel.

AT A GLANCE

3. Controls and signals

Metal pushbutton	Starts exactly one random selection.
Red LED	RED - carry out the intended inspection or defined action.
Green LED	GREEN - no inspection or defined release.
Internal buzzer	Can additionally provide an audible signal for RED; can be switched on/off internally during normal operation.

START-UP AND SELF-TEST

4. Commissioning

Place the DZG-T on a stable, dry surface. Connect the 12 V plug of the power supply to the device, then connect the power supply to a suitable 230 V mains socket. The self-test starts immediately.

1 RED + buzzer approx. 1 second	2 GREEN approx. 1 second	3 Ready all signals off
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Important information about the buzzer

During the self-test, the buzzer sounds only if the slide switch is set to ON.

NORMAL OPERATION

5. Triggering a random selection

- Press the pushbutton once and then release it.
- The device evaluates the trigger according to the selected RED probability.
- RED or GREEN is displayed for the selected signal duration.
- For a RED result, the buzzer also sounds if the alarm switch is set to ON during normal operation.
- While a signal is being output, further button presses are ignored. Holding the pushbutton down does not trigger a new cycle after the display ends. To trigger a new selection, release the pushbutton first and then press it again.

Random selection is not a counting sequence

With a 10% RED probability, RED does not automatically appear on every tenth activation. Each trigger is evaluated independently. In short series, the same result may therefore occur several times in succession.

END OF OPERATION

6. Switching off the device

To switch off the device, unplug the power supply from the mains socket or disconnect the mains supply at the designated switching point. If the device is operated permanently at an inspection station, it may generally remain powered provided the specified environmental conditions are observed.

CONFIGURATION

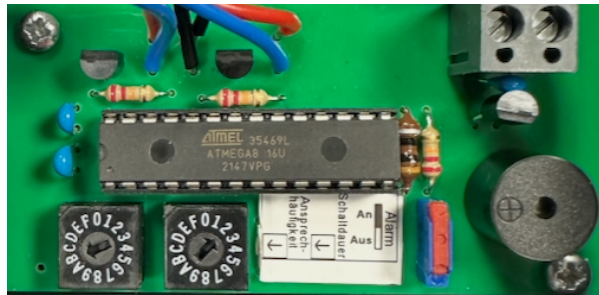
7. Setting RED probability, signal duration and buzzer

Factory setting

15% RED (B) / 2 seconds (2)

Before opening

Disconnect the power supply; observe ESD precautions; do not touch components.



Original circuit board: RED probability on the left, signal duration in the centre, alarm/buzzer ON-OFF on the right.

Carefully set the desired position using a small screwdriver. Do not use force.

RED probability

Pos.	Value	Pos.	Value
0	0% - always GREEN	8	8 %
1	1 %	9	9 %
2	2 %	A	10 %
3	3 %	B	15 %
4	4 %	C	20 %
5	5 %	D	40 %
6	6 %	E	60 %
7	7 %	F	80 %

Signal duration

Pos.	Value	Pos.	Value
0	OFF - no visual or audible signal output	8	16 s
1	1 s	9	20 s
2	2 s	A	25 s
3	4 s	B	30 s
4	6 s	C	35 s
5	8 s	D	40 s
6	10 s	E	50 s
7	12 s	F	60 s

Caution: signal duration 0

Position 0 completely suppresses visual and audible signal output. Use this setting deliberately only during normal inspection operation.

Close the housing after making the adjustment. Only then reconnect the power supply and wait for the start-up self-test to complete.

DZG-T

8. Technical data

Product / model	DZG-T - random selection generator in desktop housing
Device supply	12 V DC via external plug-in power supply
Mains connection	230 V AC via the corresponding plug-in power supply
Display	red and green LED
Audible signal	integrated buzzer for RED, can be disabled during normal operation
Operation	metal pushbutton on the device
RED probability	16 settings from 0% to 80%
Signal duration	16 settings from OFF to 60 s
Factory setting	15% RED (B) / 2 s signal duration (2)
Power consumption	max. 2 VA
Degree of protection	IP40
Operating temperature	5 °C to 45 °C
Operating environment	dry indoor area
Housing	ABS plastic housing with aluminum front panel
Dimensions	approx. 145 x 85 x 49/73 mm
Country of origin	Germany
Firmware	DZG-T V1.1

IF SOMETHING DOES NOT WORK AS EXPECTED

9. Troubleshooting

Observation	Check / explanation
No function / no self-test	Check the mains socket, power supply, 12 V plug connection and any visible damage. Disconnect the device from power and reconnect it.
No indication after pressing the pushbutton	Check whether the signal duration is set to position 0 (OFF). In position 0, no visual or audible output is intentionally produced.
RED without buzzer / buzzer does not sound at power-on	During normal operation, the buzzer may be switched off internally. Check the alarm switch only with the device de-energised and the housing open.
Several RED or GREEN results in succession	Normal. The results are generated independently; the selected probability does not define a fixed sequence.
Pushbutton does not respond during a signal	Normal. Further triggers are blocked while a signal is being output.
Pushbutton held down - no new trigger	Normal. Release the pushbutton and press it again.

CARE

10. Cleaning and maintenance

- Before cleaning, disconnect the power supply from the mains and from the device.
- Clean the housing with a soft, dry or only slightly damp cloth.
- Do not use aggressive cleaning agents, solvents, sprays or abrasive products.
- The device contains no components that require maintenance by the user, apart from adjustments using the designated switches.

SERVICE

11. Repair and RMA

In the event of a technical defect, do not repair or modify the device yourself. For repairs and complaints, first use the MTS RMA procedure and request an RMA document. A clear description of the fault will speed up processing.

Before returning the device

Do not return the device without an RMA number!

RMA form: <https://www.mts-electronic.de/reklamation/>

END OF PRODUCT LIFE

12. Decommissioning and disposal

At the end of their service life, do not dispose of the device and plug-in power supply with unsorted household waste. Dispose of waste electrical and electronic equipment through an appropriate return or collection point in accordance with the regulations applicable at the place of use. Observe any internal company disposal requirements.

CONTACT

13. Manufacturer and current documentation

MTS-electronic

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RMA: www.mts-electronic.de/reklamation/

REVISION

14. Document status

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MTS-electronic - clear random decisions for professional inspection processes.