

# RoeTest – Computer Tube Tester / Tube Measuring Device

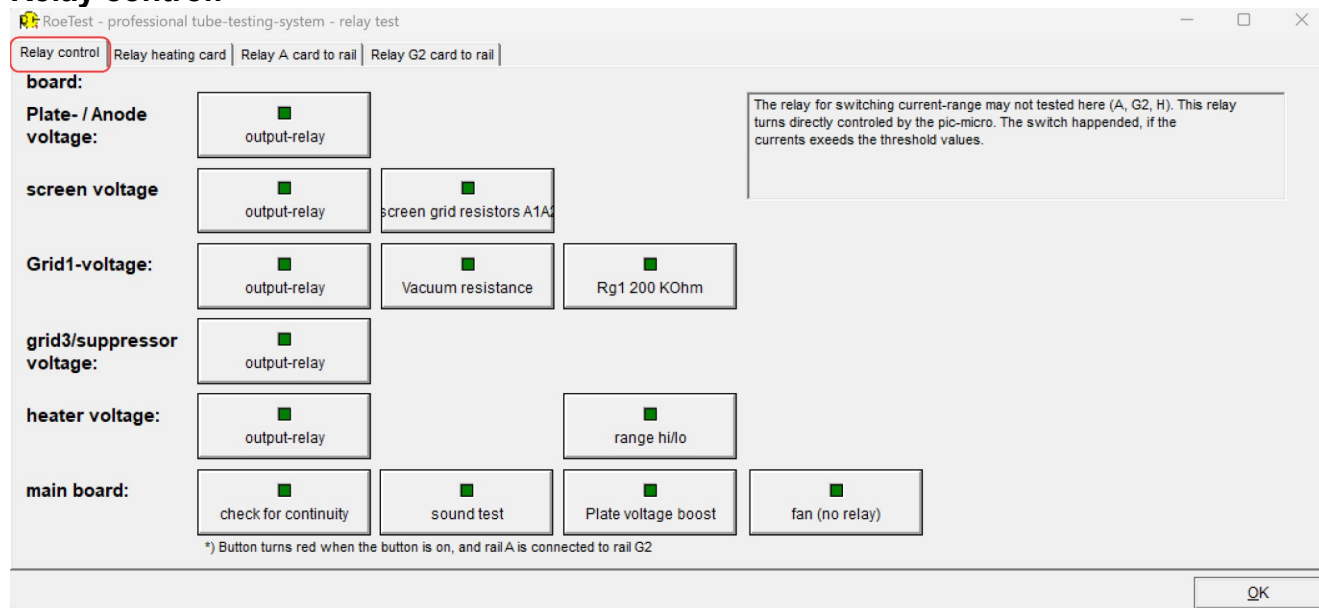
(c) - Helmut Weigl [www.roehrentest.de](http://www.roehrentest.de)

## Options - Relays:

Used for testing the relays on the main board, the anode, G1, G2, G3 and heater boards.

The relays for switching the measure ranges of heater current, anode current and G2 current cannot be tested using this mask. Those relays are directly controlled by the Pic and not by the PC software.

## Relay control:



Here you can check whether the relays are switching. When switching on/off you should hear the corresponding relay click.

Continuity tester test (on main board): If the <check for continuity> button is switched on and you connect the relay rails A+G2, the button should light up red.

## Relay heating card:

RoeTest - professional tube-testing-system - relay test

Relay control | **Relay heating card** | Relay A card to rail | Relay G2 card to rail

All cards must be in the device and the device must otherwise be functional  
Nothing may be connected to the socket box connection.

**1. Check relay contacts of the output relay (relay 3 according to picture):**

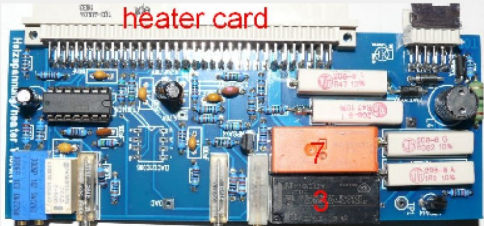
testing | Relay 3 contact on  
Relay 3 contact off

**2. Testing relay contacts for switching the transformer winding (relay 7 according to picture):**

testing | Relay 7 contact for high transformer voltage  
Relay 7 contact for low transformer voltage

Note: The contacts in the same relay for switching the current limiting resistors cannot be checked using software.

green=ok, red=error, yellow=one or more relays of which are errors (cannot be checked individually)



OK

Testing the relay contacts of the output relay and the relay contacts for switching the transformer winding. The relay contacts for switching the current limiting resistors cannot be checked with software.

## Relay A card to rail:

RoeTest - professional tube-testing-system - relay test

Relay control | Relay heating card | **Relay A card to rail** | Relay G2 card to rail

All cards must be in the device and the device must otherwise be functional  
Nothing may be connected to the socket box connection.

**1 testing** | Nothing may be connected to sound test sockets

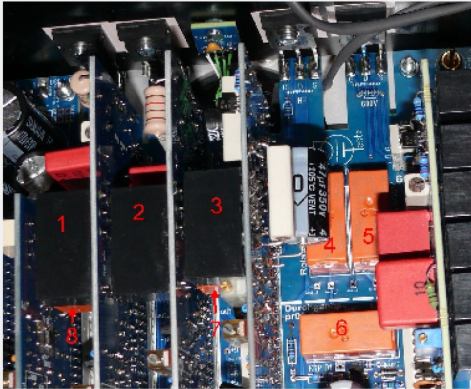
Relay 3 contact output A card on (relay on)  
Relay 5 contact 600V off (idle state)  
Relay 4 sound test off (idle state) - without transformer  
Relay 6 continuity tester, contact to A-rail on (idle state)

Relay 3 contact output A card off (idle state)  
Relay 5 contact 600V on (relay on)  
Relay 4 sound test on (relay on) - without transformer  
Relay 6 continuity tester, contact to A-rail off (relay on)

**2 testing** | A transformer must be connected to the sound test sockets

Relay 4 sound test on (relay on) - with transformer

green=ok, red=error, yellow=one or more relays of which are errors (cannot be checked individually)



OK

### 1 Test relay contacts of the A card to the rail

The 'on' contacts of relays 3,4,5,6 can only be tested together. If one of these relays has no contact, all 4 relays are displayed as faulty. The switch-off contact can be checked for each relay. Special feature: No transformer may be connected to the sound test sockets.

### 2 test relay 4, sound test, switch-on contact

A transformer must be connected.

## Relay G2 card to rail:

RoeTest - professional tube-testing-system - relay test

Relay control | Relay heating card | Relay A card to rail | **Relay G2 card to rail**

All cards must be in the device and the device must otherwise be functional!  
Nothing may be connected to the socket box connection.

testen

**1. Testing the relay contacts of the output relay (relay 1 according to the picture) in conjunction with the continuity tester relay (relay 6):**

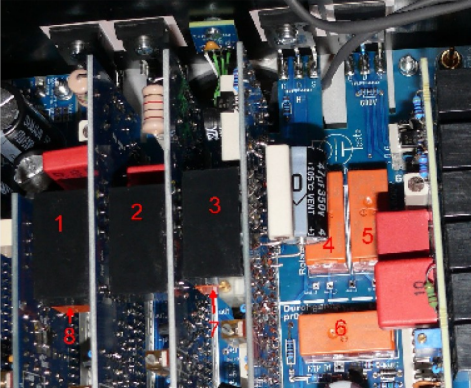
Relay 1 contact on	Relay 6 contacts G2 rail
Relay 1 contact off	Relay 6 contact to G2 rail off

**2. Testing relay contacts Mag.Eye - over 470 KOhm on rails - (relay 9 according to picture) in conjunction with continuity tester relay (relay 6):**

Relay 8 contacts G3 rail	
Relay 8 contact to G3 rail off	
Relay 8 contacts G2 rail	Relay 6 contacts G2 rail
Relay 8 contact to G2 rail off	Relay 6 contact to G2 rail off

green=ok, red=error, yellow=one or more relays of which are errors (cannot be checked individually)

OK



The 'on' contacts of relays 1 and 6 can only be tested together. If one of these relays has no contact, all 2 relays are displayed as faulty. The switch-off contact can be checked for each relay.