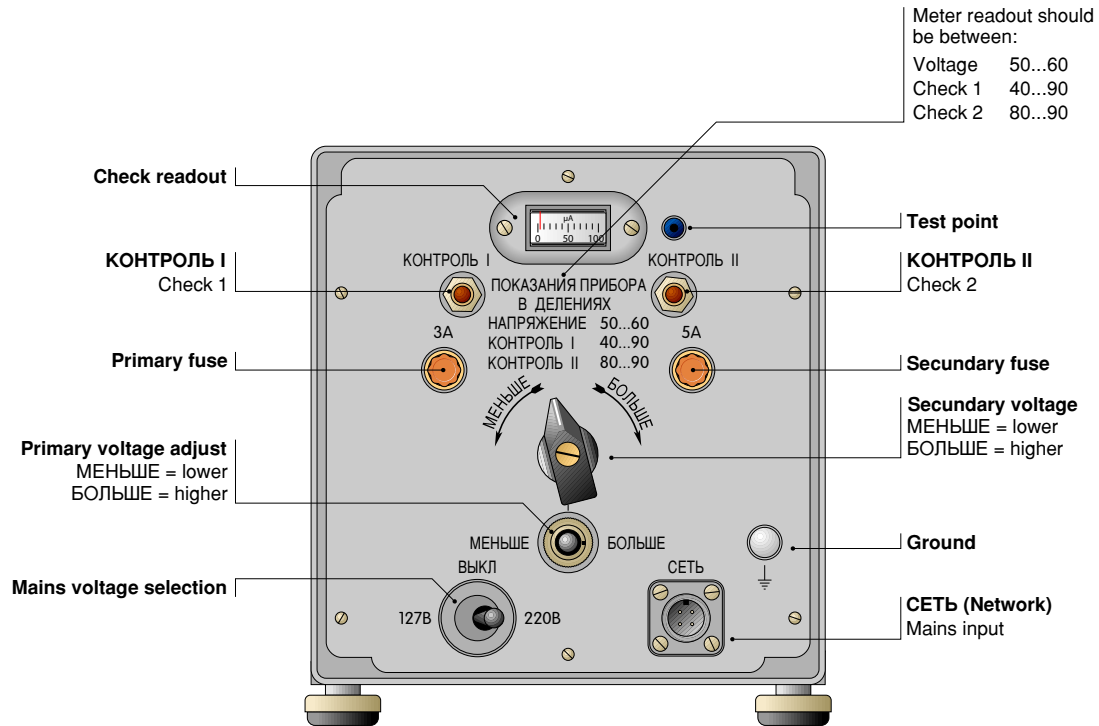
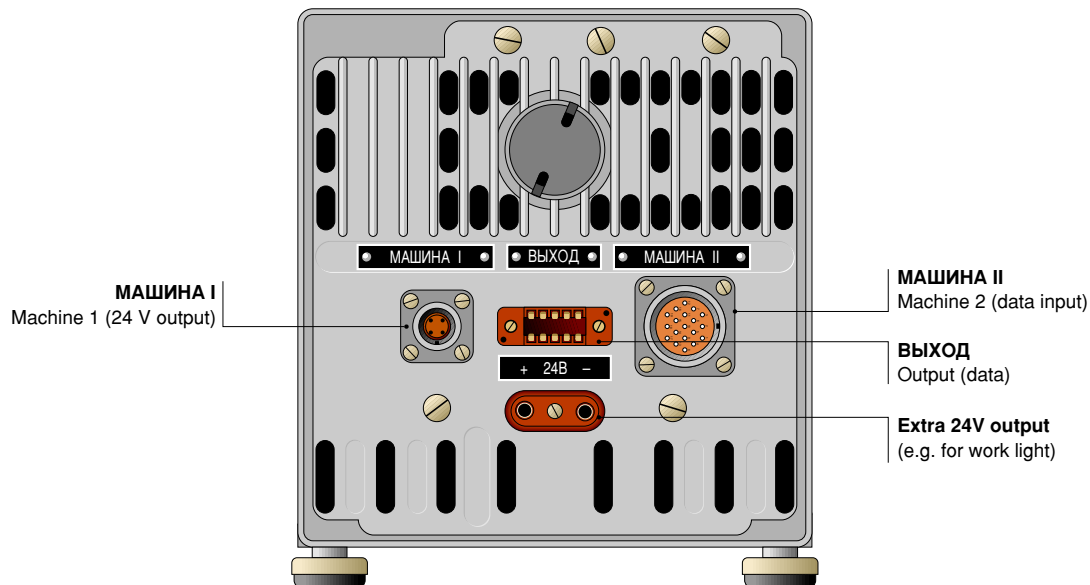


Polish Fialka PSU Controls



Front view

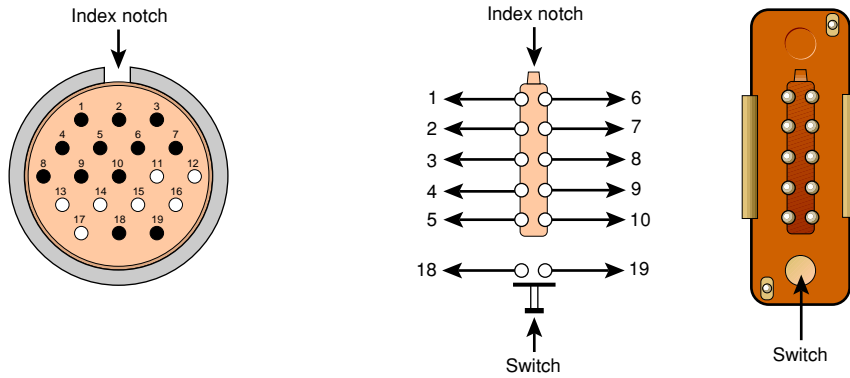


Rear view

Please note that all cables between the Fialka and the power supply must be present, or else the Fialka won't work. The power supply has to 'read' the data output of the Fialka in order to activate any of the internal 5 dummy loads that are present in order to avoid TEMPEST problems. If the data cable is not present, the power supply will not produce any output power.

The meter is used to adjust the primary and secondary voltages prior to turning the Fialka on. First select the mains voltage with the (locked) switch in the bottom left corner of the front panel. In the drawing above it is set to 220V. Set all other switches as indicated. Connect all cables between Fialka and the PSU. Leave the Fialka in the OFF position. Connect the mains cable and perform a check. Press **Check 1** and ensure the reading is between 40 and 90. If not, use the **Primary Voltage Adjustment** to decrease or increase it. Next, press **Check 2** and verify that the reading is between 80 and 90. If not, adjust the secondary voltage by using the rotary switch. If all goes well, the meter should read between 50 and 60 when no button is pressed. If this is the case, turn Fialka ON.

Polish Fialka PSU Connections

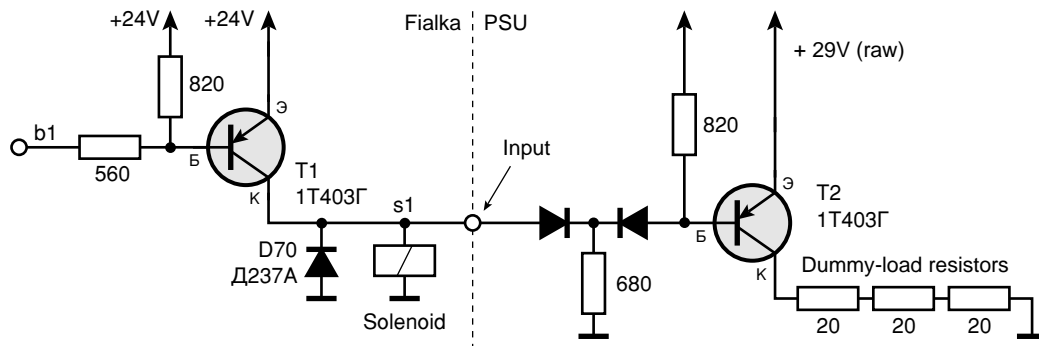


Connectors on the data cable

The above connectors are both part of the data cable between the Fialka and the PSU. The parallel 5-bit data from the Fialka is fed from the 10-way connector (on the right of the machine) into the PSU. Please note that this connector has a built-in switch. The switch is used to 'sense' the presence of the plug in the Fialka data socket. The big circular connector goes to the data input of the PSU. If the Fialka needs to be connected directly to a transmitter, a 10-way socket (similar to the one on the Fialka itself) is present at the rear of the PSU.

The data cable MUST be present and connected, or else the PSU will not work. The reason for this is the fact that the PSU contains 5 dummy load resistors. Depending on the number of active bits in the Fialka output, the remaining bits (i.e. the inactive bits) are used to drive the dummy loads. This way the Fialka will draw a constant current from the mains, avoiding the possibility for an intercepting enemy to acquire the plain text from tapping the mains (TEMPEST).

Below is a simplified driver circuit of the dummy loads.



Dummy load driver