

Instruction Leaflet for the Control Unit ZR electric top

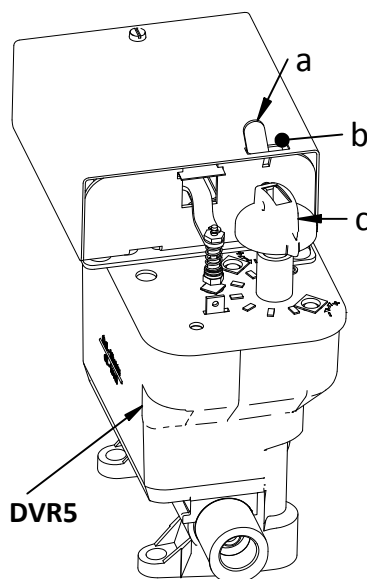
Continuously controlling ZR electric top for minimum / maximum control

The control unit is intended for mounting onto the oil control Toby DVR5. In connection with a room thermostat, automatic control of the heating device, i.e. between maximum and minimum setting, is achieved.

The ZR electric top control unit runs on power.



ZR electric top



Function of the ZR electric top on the Toby DVR5 oil control.

The Toby DVR5 oil control with the fitted ZR electric top is installed in the oil burner. When the ZR electric top is connected to a room thermostat, the oil burner operates in automatic mode. During operation, the ZR electric top automatically controls the oil supply for high fire and low fire and vice versa. In the event of a power failure, the unit automatically sets to low fire. The manual latch lever (a) can be used to turn off the automatic control by switching lever (a) to position (b). The oil burner can then be operated manually via the manual control knob (c). If the oil burner is fitted with an Toby oil control with ZR electric top featuring a microswitch, the burner can be operated with fan-assisted appliances.

Adjusting the operating arm limits

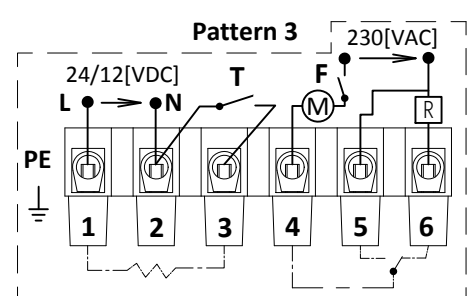
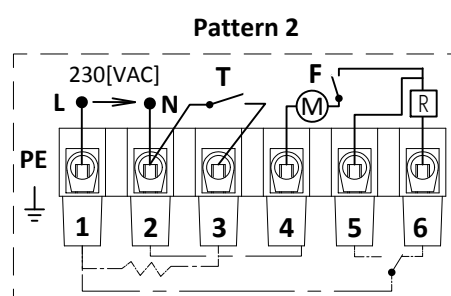
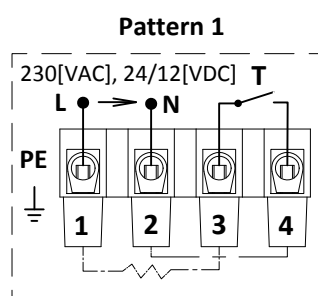
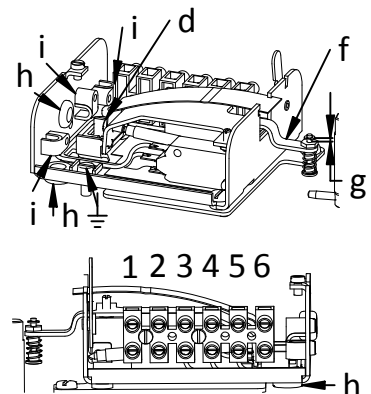
A slotted screwdriver is used to turn screw (d) through the drilled hole in the casing at the height of the switch (f) to adjust the setting between the ZR electric top and the DVR5. Turn the screw clockwise to reduce the flow adjustment delay and anticlockwise to increase flow adjustment delay. For the basic adjustment, a distance (g) of a minimum of 1.5 mm and maximum of 2.0 mm is required.

Electrical connections

The wiring arrangements are shown in the circuit diagram (see below). The cables are fed inwards or outwards through the grommets (h). The cables should be attached to the inside of the casing by means of cable clips (i). Wiring of the connectors must be executed in accordance with Pattern (1) for appliances without fan assistance, and Pattern (2) or (3) for appliances with fan assistance.

For 230 volt applications, the earth connection must be made. The fan switch makes it possible to reduce the speed of the fan on low fire by the addition of a resistor 'R' at cable connection no 6 (cf. Pattern (2) and (3)).

Please check before connection that the voltage of the ZR electric top is the correct version for the appliance voltage.

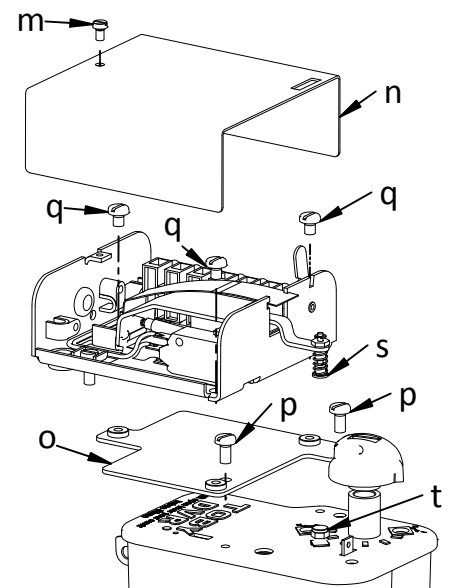
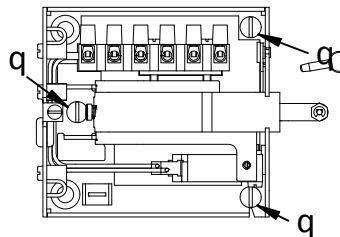


Assembly

The ZR electric top is usually mounted by Toby onto the oil control and then supplied to the customer. If a ZR electric top must be replaced by the customer, proceed as shown in the **picture on the right**. Remove the screw (**m**) and take off the cover (**n**). The adaptor plate (**o**) is fastened onto the control with the 2 screws M4x8 (**p**). The ZR electric top is then fixed onto the adaptor plate with the 3 screws M4x4 (**q**). Check and adjust if necessary that the contact pin (**s**) is directly above the thermostat pin (**t**).

Use an installation set to mount the ZR electric top to the OCI or Dungs oil control.

Always check the local by-laws and manufacturers instructions before assembly!



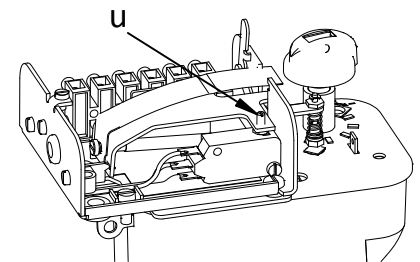
Setting the fan switching point on the ZR electric top with a microswitch

The models with a microswitch enable turning on a fan to support the burning process.

The adjustment screw (**u**) is set to start the fan soon after the oil control leaves the low fire position.

If you wish the fan to be started later in the 'up' cycle, turn the screw clockwise. Adjust the screw only by a ¼ turn at a time and check the results before further adjustment.

Do not adjust the screw to turn the fan on too early on the 'up' cycle as this may prevent the fan from turning off at the end of the 'down' cycle. In that case, turn the adjustment screw back anti-clockwise.

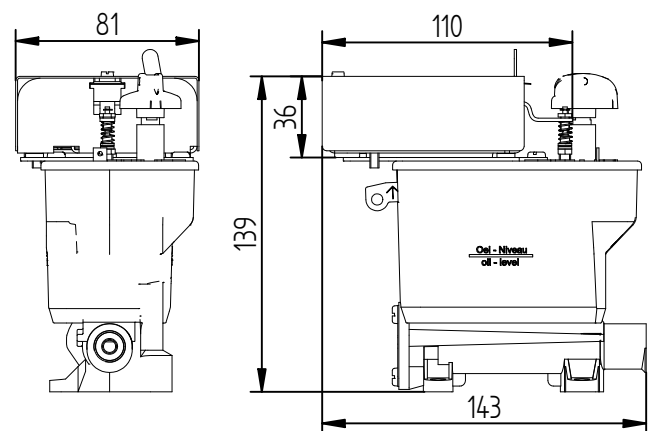


Operation

After installing and connecting the room thermostat, the ZR electric top is ready for use. Refer to the appliance manufacturers instructions for lighting the appliance. When putting the appliance 'out of operation' turns the thermostat off to switch off the power supply to the ZR electric top.

Technical Information

Manufacturer	Glutz AG, CH-4502 Solothurn
Supply voltage	230[VAC] ± 10[%] 24[VDC] ± 10[%] 12[VDC] ± 10[%]
Mains frequency	50[Hz]
Power consumption	12[W]
Continuous current micro-switch	2[A] Ohmic load 1[A] inductive load
Inrush current microswitch	6[A] inductive load
Acceptable ambient temperature	-10[°C] to 50[°C]
Protection class	IP 20
Dimensions (LxWxH) including DVR5	143x80x139[mm]



All specifications subject to change

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