Unpacking:

Unpack the apparatus carefully and with the complete accessory.

Setting-up:

Set up horizontally on a flat base-plate, so that the function of the temperatureregulator is not disturbed.

Electric supply:

To be connected only to a socket according to regulations, after having compared voltage and type of current.

Operation:

Switch on main-switch (symbol "1"): red pilot lamp lights up and indicates readiness for operation. Set the temperature-selector to the temperature desired. The white pilot lamp indicates the alternate switching on of the temperature-regulator. When operating the apparatus for the first times it has to be watched carefully and must not work without supervision!

With the screw on the left of the controlboard the temperature-scale can be blocked, in order to avoid unintentional change of the set temperature.

Operation with timer:

Press main-switch to the symbol and set the pointer of the timer to the desired interval. The pointer can be moved in both directions.

with the ventilation slide (knob on the control board) ventilation of the MEMMERT-Oven can be adjusted individually.

Ventilation slide pushed in: no used air and no fresh air.

Ventilation slide pulled out, if required partially or completely: exchange of fresh

and used air.

In MEMMERT-Ovens the fresh air is preheated and enters the cabinet through the lateral slots on the top of the cabinet. There it is mixed with the streaming warm air. The used air leaves the cabinet near the bottom backward and goes out by means of an exhaust-pipe on the upper part of the oven.

Models with incorporated blower (type UL and SL): Operation with or without blower is possible. When operating without blower, the set temperature has to be adjusted at the temperature-scale; if an even temperature distribution is wanted operation with blower is strongly recommended. Air flow in the cabinet is horizontal and vertical: inflow is lateral - intake in the middle of side panels and in the back.

Switching on by switch with symbol of blower. The cabinet of the MEMMERT-Oven is warmed up intensely, uniformly and free of

overheating. The warmth is transferred by convection and radiation.

If the charging-goods are very moist or wet, a catching-tray has to be ordered and used, it should be emptied, if necessary. When sterilizing the ventilation slide has to be closed completely, after the wet sterilizing goods have dried up.

Temperature-Regulator:

The temperature-regulator works on the principle of the extension of metal rods at different thermal expansion.

Correction is possible with the adjusting disc of the regulator pull rod. The adjusting disc is accessible at the lower part of the back, after having removed the small plate

Turning to the right (clockwise) gives lower temperature. Turning to the left higher temperature. Please turn only little by little (1 mm of the circumference = approx 1°C).

Cooling (Series BK): when the desired working temperature is at or below 5 °C above room-temperature (normal temperature-range from  $\pm 0$  °C) main switch has to be put to "Kühlen" (cooling). The cooling is switched on and off automatically by the regulator.

When operating with cooling, incubator must be defrosted from time to time (approx. every 10 to 14 days). In this case it is recommended to heat-up to about  $+50^{\circ}$ C for approx. 3 hours.

Safety regulator:

When working without supervision or with combustible or inflammable or explosive materials a second temperature regulation device (safety-regulator) is necessary and even prescribed. The safety-regulator is constructed in the same way and electrically it is series-connected with the working regulator. It is recommended to set it about 5 °C higher than the working regulator. If the working regulator should fail for any reason, the safety regulator would take over the function of the same, with a somewhat higher temperature.

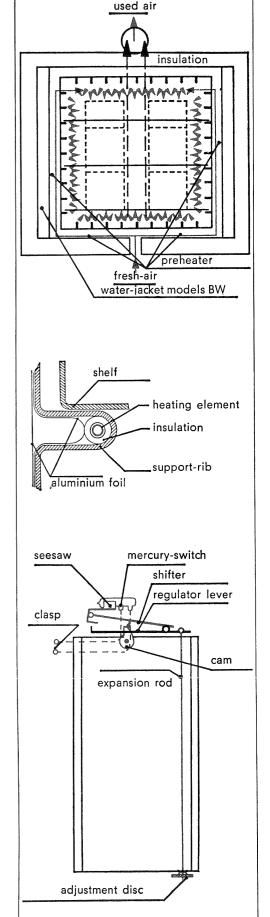
Charging:

The charging-goods should be put into the oven reasonably and not too tight, so that an air-circulation is easily possible.

## General directions for the sterilization in MEMMERT-Hot-Airs-Sterilizers and Universal Ovens.

charging	instruments without soft soldering	cutting and sharp instruments	glass and glass instruments	modern syringes
Preparation	put the cleaned instruments into the trays	grease the cleaned instruments with vaseline and put them at a mull-sheet into the trays	take to pieces the cleaned glass-con- tainers and glass- syringes; put them into the trays; cool down slowly	put flasks and cylinders separately on mull
Set the sterilizing temperature switch on the oven	180 °C	160 °C	180 °	160 °C
sterilizing time for the hot-air-system (after reaching the sterilizing temperature)				
a) putting the instruments into the cold sterilizer	30 min.	60 min.	30 min.	60 min.
b) putting the instruments into the hot sterilizer	60 min.	80 min.	do not put into the hot oven; other- wise breakage	80 min.

## Operating Instructions for memmerh - Ovens



## Willi Memmert KG Elektromedizin- und Laborgeräte

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