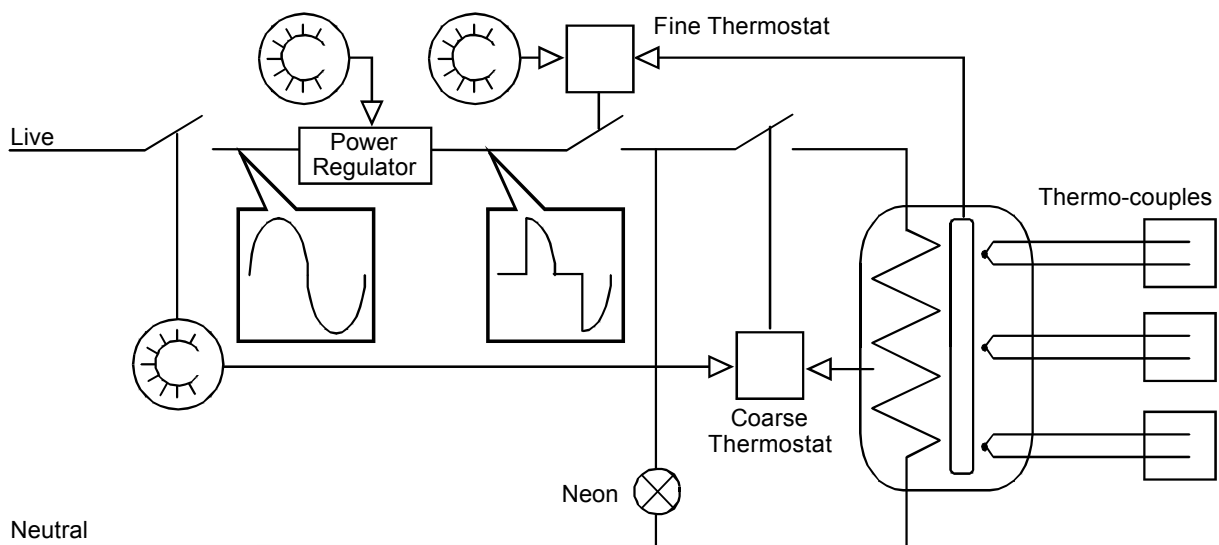
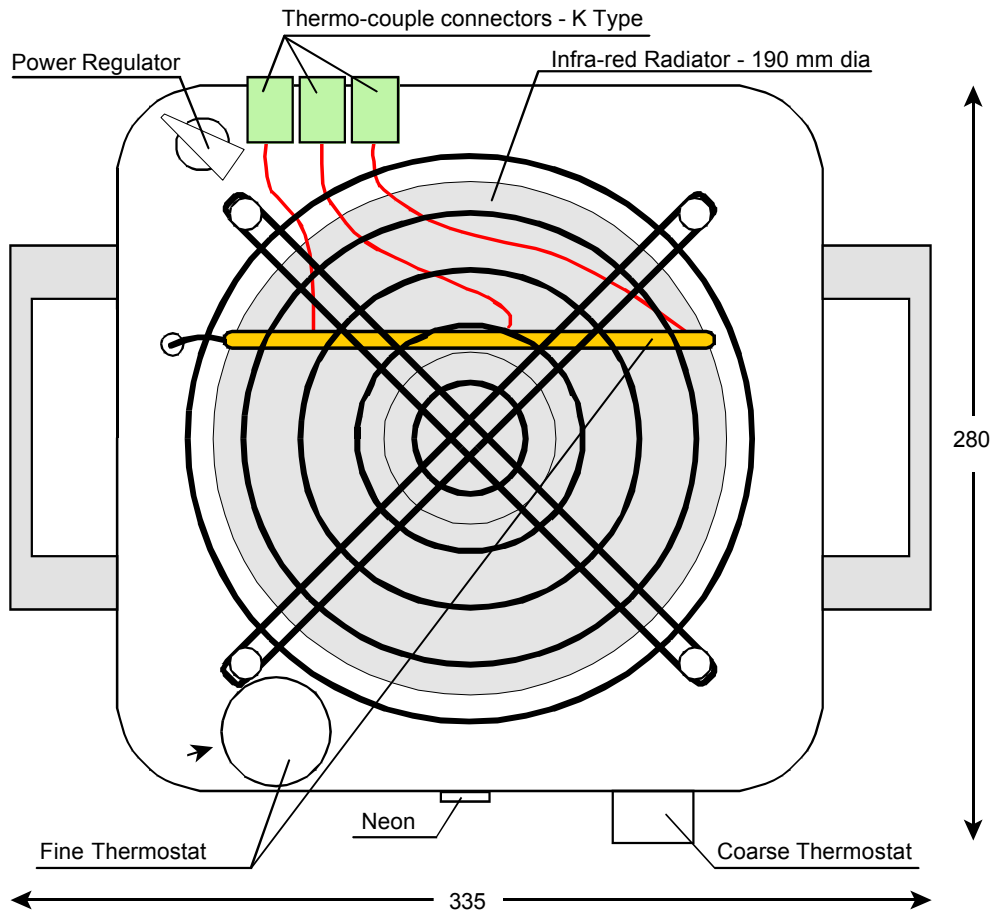


TYPE 5501 INFRA-RED RADIATOR

Test and Commissioning Platen



Description

The unit is designed for testing the operation of Infra-red detecting equipment by simulating abnormal temperature targets entering the field of view, and is fitted with four ball type castors in order that it may be readily moved on a "Test Bed".

Various controls are fitted to the device as follows :-

Coarse thermostat with combined on/off switch (+/- 20 deg.C control about set point)

Fine thermostat (+/- 5 deg.C control about set point)

Power regulator - Used to negate "Over Shoot" due to thermal mass of platen

Thermo-couples and associated connectors - K Type - 3 off

Operating Procedure (From Cold)

- A) Arrange to monitor the Thermo-couples with an appropriate instrument.
- B) Set the *Fine Thermostat* to the required temperature.
- C) Set the *Power Regulator* to the "Boost" position.
- D) Apply mains supply and move the *Coarse Thermostat* from the "Off" position to the required temperature.
- E) When the *Fine Thermostat* first operates (Neon extinguishes) set the *Power Regulator* to the "Idle" position
- F) Allow the unit to stabilise for 30 mins.
- G) Observe the Infra-red Radiator temperature by means of the thermo-couples. If necessary make minor adjustments to the *Fine Thermostat* and *Power Regulator* to achieve the required "mean" temperature taking into account surface distribution variations and control hysteresis cycle. Also see note.

Note:

In theory it is possible to reduce the *Power Regulator* setting such that the Infra-red Platen stabilises at a constant temperature within the *Fine Thermostat* control hysteresis band. This is dependant on both the regulation of the mains supply voltage and the stability of the ambient temperature. (The energy input equals the thermal dissipation.)

Either way, the closer that the input to output is balanced, the more uniform will be the surface temperature during the heating portion of the control cycle.