

# ESWA ELEMENTS

## GENERAL INSTRUCTION FOR ELECTRICAL INSTALLATION



Please familiarize yourself with the following instruction before undertaking any work:

The electrical installation leading to the ESWA elements must follow the National Wiring Regulations and installation instructions.

The terminal fitting on each element **can not** be used as a general branch junction box as it is designed as an integral part of the ESWA wiring system. The terminal is constructed from material classified as VI flame retardant (ASTM). Access to the terminal fitting is obtained as instructed on the attached label.

Before fixing the elements to the joists or battens, remove the orange caps and flip open the clear lid of the connection terminal. The four push wire connectors (WAGO 273 -104) inside the terminal fitting are each designed for, maximum, one 2.5mm conductor. Both solid and stranded conductors can be used.

The circuit wiring normally goes from the main distribution panel board to the element via a room thermostat.

When correctly wired the ESWA elements can not be disconnected without cutting off each individual wire lead and it is impossible to open the lid without proper tools, it is therefore very important that all elements are correctly placed before any wiring is undertaken.

If for some reason an ESWA element needs to be replaced, the replacement element is supplied together with its individual terminal fitting. The old terminal fitting can not be used again and is therefore scrapped together with the faulty element. **Figure 1** shows the electrical wiring of a typical ESWA installation.

**The terminal fittings must be left accessible for inspection before the ceiling material is applied.**

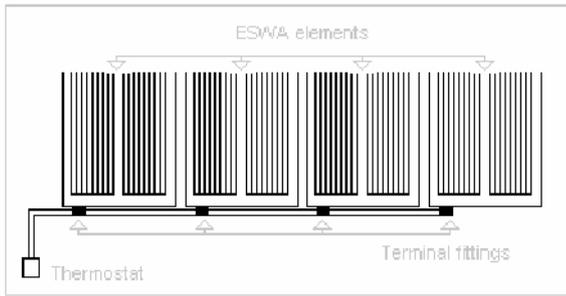


Fig. 1

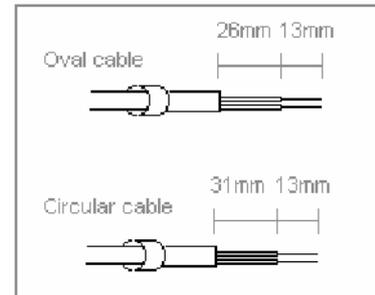


Fig. 2 (top a and bottom b)

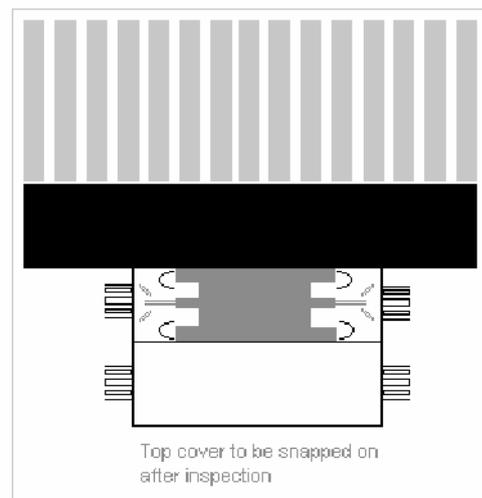
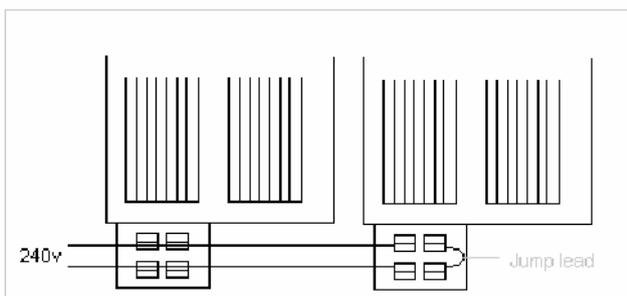
The orange cap locking the cable inlet must first be pushed back along the cable before the connections can be made. The membrane on the orange cap can be removed for this purpose with a knife or a screwdriver.

The cable must be stripped to exact lengths. The length to be stripped depends upon the type of cable. If it is of an oval type the stripping must be done as shown in **figure 2a** . If it is of the circular cable it must be stripped as shown in **figure 2b** .

It is very important for correct connection of the heating element that the stripped conductors are pushed all the way into the terminal openings until resistance is met. Check for correct connection by giving the conductor a tug, it should not dislodge. After the conductors have been fixed into the terminal the lid of the terminal fitting is closed into place.

The orange caps are then pushed all the way back over the cable entry which double locks the terminal fitting. On the last terminal of any circuit an unbroken orange cap must be pushed over the unused cable entry.

For elements which have to be connected in series to make up the supply voltage, a jump lead must be made in the terminal fitting of the last element, see **figure 3** . If there is a mixture of parallel connected and series connected elements in one circuit, observe that you can not continue from the last series connected element to a new group of series elements or to a parallel connected element.



For further information please contact:

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