Install of Outdoor Reset on Riva Boilers

12.7 Installing the outdoor reset temperature probe:

The outdoor reset temperature probe must be installed on an external wall of the building, avoiding:

- Direct sun radiation.
- Wet walls or walls where mould tends to form.
- Installation near fans, exhaust or chimney vents.

12.8 Electric connection between the boiler and the outdoor reset temperature probe:

When connecting the outdoor reset temperature probe to the boiler, use electric wires with a minimum 20 AWG (0.032 in DIA).
The electric wires for connecting the outdoor reset temperature probe to the boiler must run through different conduit than line (120 VAC), as they are powered at a low safety voltage and the maximum length must not exceed 65 feet.

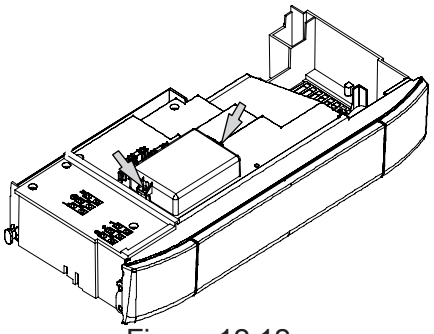

Figure 12.12

- Remove the two screws shown in Figure 12.12 and open the **outdoor reset** connection terminal board.

- Connect the two electric wires to terminals **E1** and **E2** on the terminal board as shown in Figure 12.13.
- Connect the same wires to the external probe terminals

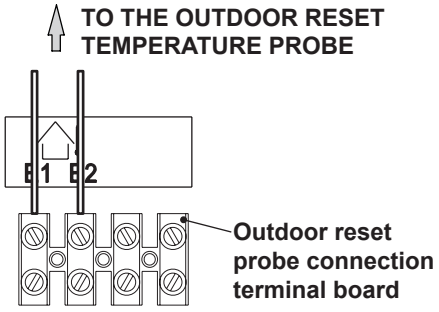

Figure 12.13

The path of the outdoor reset temperature probe wires or cable must follow the indicated path and be fastened as shown in Figure 12.14.

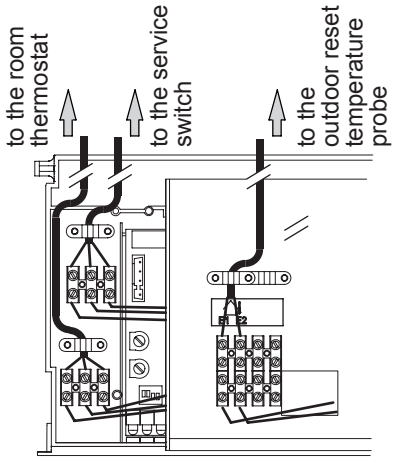

Figure 12.14

Setting Reset Curve for Riva Boiler

15.7 Setting the outdoor reset K coefficient:

The boiler is set with a K coefficient equal to zero for boiler operation without a connected probe.

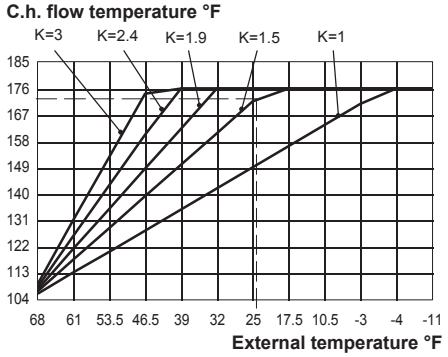

Figure 15.9

The K coefficient is a parameter that raises or lowers boiler supply temperature as the external temperature changes.

When the outdoor reset temperature probe is installed, this parameter must be set based on the heating system efficiency to optimise the supply temperature (Figure 15.9).

Ex. To achieve a supply temperature to the heating system of 173°F with an outdoor temperature of 25°F, K must be set at 1.5 (dashed line in Figure 15.9).

- Position the handle C indicated in Figure 15.10.

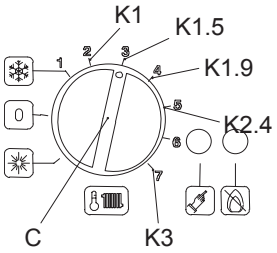

Figure 15.10

15.8 Adjustment of temperature WITH the outdoor reset temperature probe connected:

In case of acting on the knob C Fig. 15.10 to turn off the boiler or to operate it for hot water only, **put the knob in the same position when reactivating the central heating operation**.

Your boiler automatically adjusts the temperature of the central heating flow as a function of the outdoor reset temperature.
The adjustment of the boiler must be carried out by the installer that will evaluate the appropriate central heating water flow temperature depending on the type of heating system.

The knob C Fig. 15.10 must remain on the position given by the installer. This will ensure the proper operation of the central heating system.

Suggested Reset Curve for given type of radiation:

- Baseboard/Hydroair, K = 3
- Steel Panel Rads, K = 1.9
- Cast Iron Rads, K = 1.5
- Radiant Heat, K = 1