

Thank you for purchasing a BN Thermic product. Manufactured to a high standard, this product will, if used according to these instructions and properly maintained, give you years of trouble free performance.



IMPORTANT: PLEASE READ THESE INSTRUCTIONS IN CONJUNCTION WITH THE HEATER INSTRUCTIONS, NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS, AND CAUTIONS. USE THIS PRODUCT CORRECTLY, AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED.



Please ensure you follow the correct wiring diagram for each heater you are connecting the CS-9 controller too.

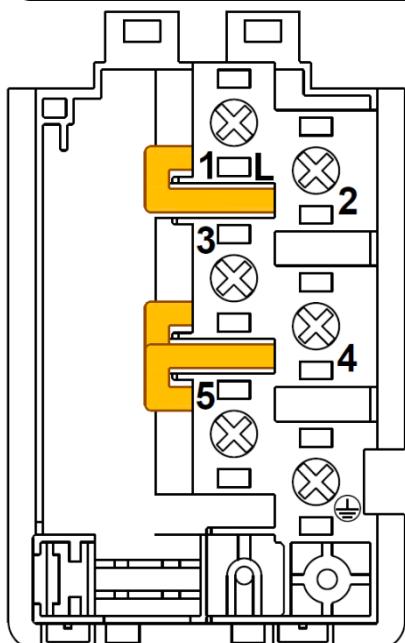
You can connect two of the same or two different models to one switch e.g. SCHG-30 and 830T but you must follow each drawing correctly paying special attention to the positioning of the dark brown link wires used.

Incorrect installation may damage the heater and is not covered by the guarantee.

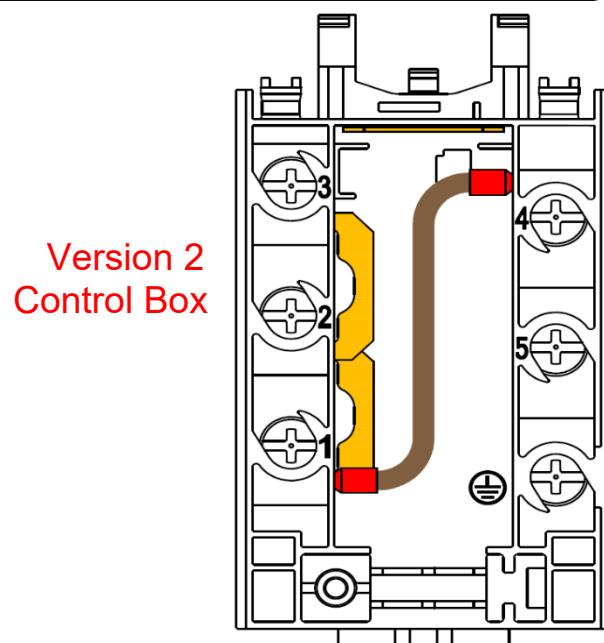
Please Note:- Specified cable sizes are for typical installations, correction factors may need to be used when determining actual cable sizes.

The model number of each heater can be found on the silver label attached to the heater close to the mains cable electrical connection box.

**IMPORTANT – We use two different versions of control box. Section 1 to 5 shows version 1
Section 6 – 9 shows version 2 control box.**

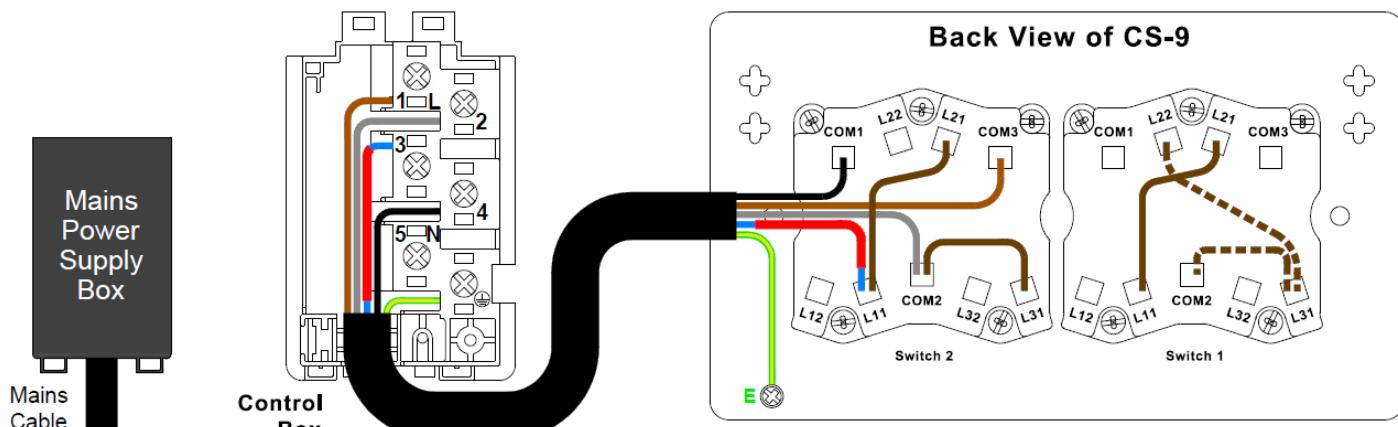


Version 1
Control Box



Version 2
Control Box

1. Heater Model – 830

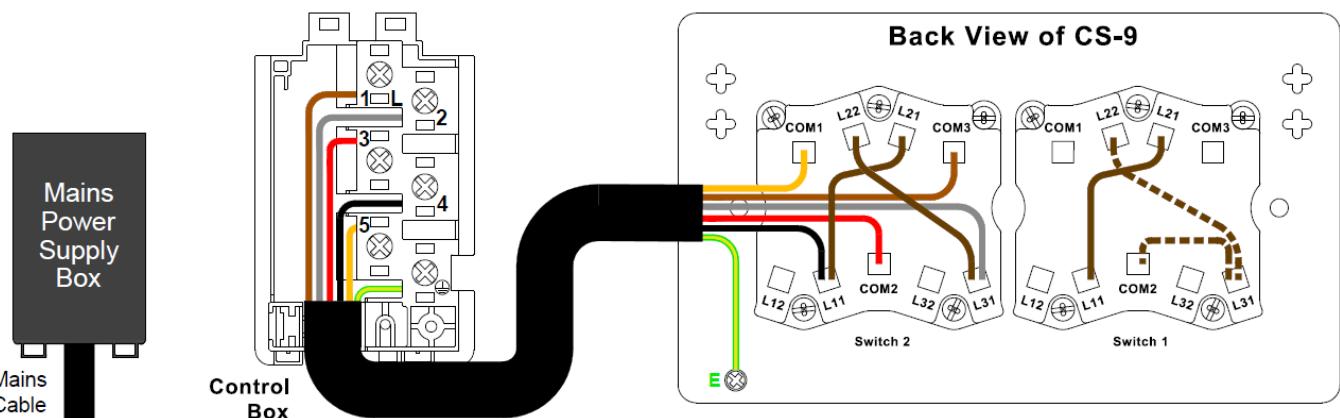


Use 1.5mm² 5 Core Cable (see note above) to connect the heater to the CS-9 controller. You can use Heater 1 or Heater 2 switch. Ensure the dark brown link wires are in the correct position in the CS-9 controller for the heater you are using as shown above.

Remove any links that may be present in heater control box between terminals 1,2,3,4 or 5.
For Mains cable wiring and sizes see instructions with each Heater.

Please Note:- Specified cable sizes are for typical installations, correction factors may need to be used when determining actual cable sizes.

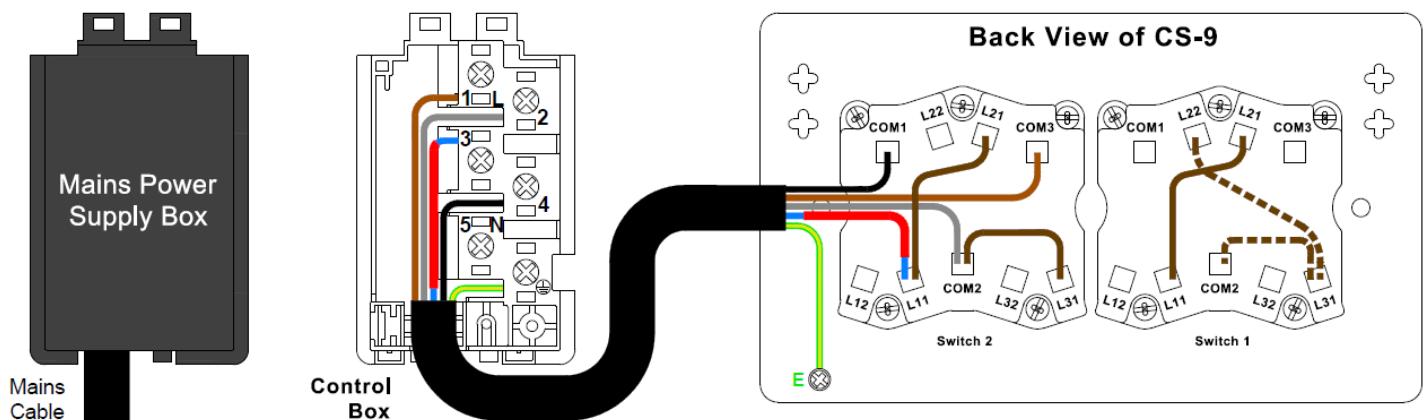
2. Heater Model – 830T



Use 1.5mm² 6 Core Cable (see note above) to connect the heater to the CS-9 controller. You can use Heater 1 or Heater 2 switch. Ensure the dark brown link wires are in the correct position in the CS-9 controller for the heater you are using as shown above.

Remove any links that may be present in heater control box between terminals 1,2,3,4 or 5. For Mains cable wiring see instructions with each Heater.

3. Heater Models – 860 / 890 / CAS-30 / CAD-60 / CAD-90 / CAT-90 / CAT-135 / CAH-180 / SCHG-45 / SCHG-60 / SMH-30 / SMH-45 / SMH-60 / RH-60



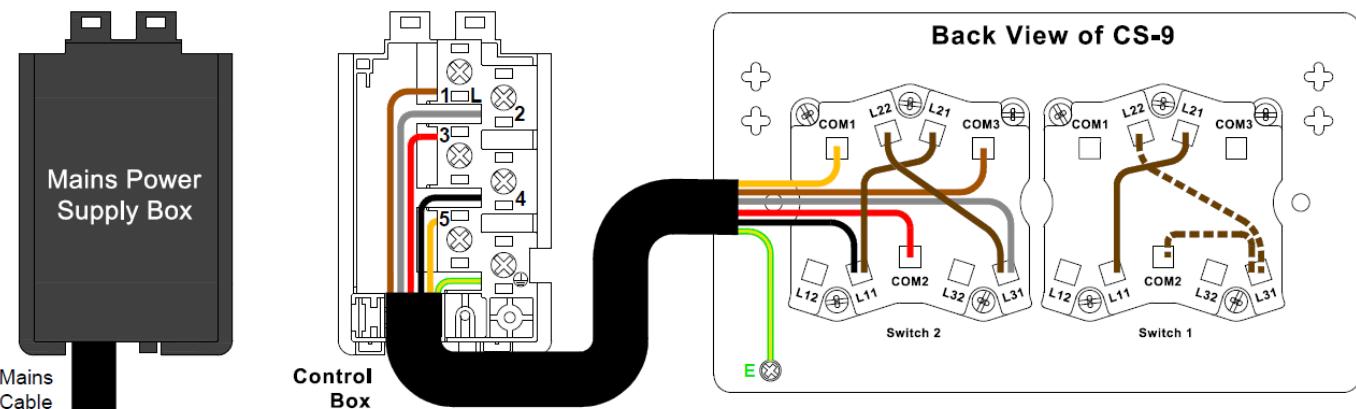
Use 5 Core Control Cable to connect the Heater to the CS-9 controller. For sizes see table below (also see note above). You can use Heater 1 or Heater 2 switch.

Ensure the dark brown link wires are in the correct position in the CS-9 controller for the heater you are using as shown above. Remove any links that may be present in heater control box between terminals 1,2,3,4 or 5. For Mains cable wiring and sizes see instructions with each Heater.

Control Box to CS-9 Switch Cable sizes (See note at top of page)

| Model No. | Minimum Wire Size | Model No. | Minimum Wire Size | Model No. | Minimum Wire Size | Model No. | Minimum Wire Size |
|-----------|----------------------------------|-----------|----------------------------------|-----------|---------------------------------|-----------|---------------------------------|
| 860 | 1.5mm ² 5 Core Cable | CAD-90 | 0.75mm ² 5 Core Cable | SCHG-45 | 2.5mm ² 5 Core Cable | SMH-30 | 1.5mm ² 5 Core Cable |
| 890 | 0.75mm ² 5 Core Cable | CAT-90 | 0.75mm ² 5 Core Cable | SCHG-45R | 1.5mm ² 5 Core Cable | SHM-45 | 2.5mm ² 5 Core Cable |
| CAS-30 | 1.5mm ² 5 Core Cable | CAT-135 | 0.75mm ² 5 Core Cable | SCHG-60 | 1.5mm ² 5 Core Cable | SHM-45R | 1.5mm ² 5 Core Cable |
| CAD-60 | 1.5mm ² 5 Core Cable | CAH-180 | 0.75mm ² 5 Core Cable | RH-60 | 1.5mm ² 5 Core Cable | SMH-60 | 1.5mm ² 5 Core Cable |

4. Heater Models – 860T / 890T / SCHG-30T / SMH-30T



Use 6 Core Control Cable to connect the Heater to the CS-9 controller. For sizes see table below (also see note above). You can use Heater 1 or Heater 2 switch.

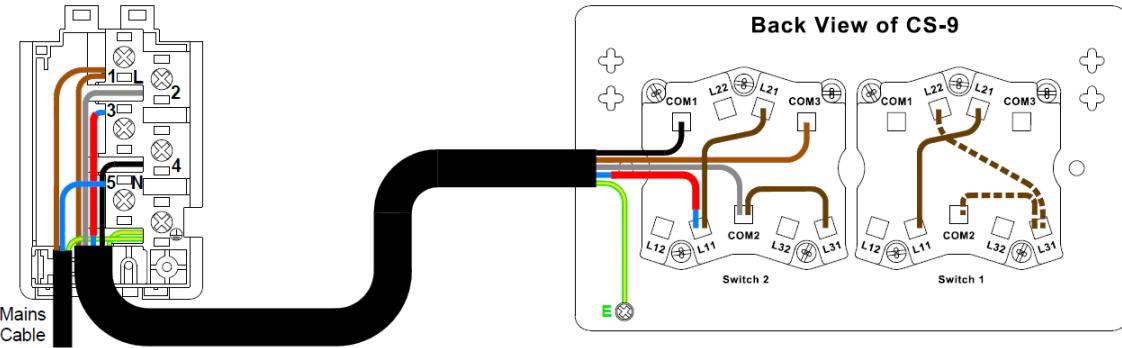
Ensure the dark brown link wires are in the correct position in the CS-9 controller for the heater you are using as shown above. Remove any links that may be present in heater control box between terminals 1,2,3,4 or 5. For Mains cable wiring and sizes see instructions with each Heater.

Control Box to CS-9 Switch Cable sizes (See note at top of page)

| Model No. | Minimum Wire Size | Model No. | Minimum Wire Size | Model No. | Minimum Wire Size | Model No. | Minimum Wire Size |
|-----------|---------------------------------|-----------|----------------------------------|-----------|---------------------------------|-----------|---------------------------------|
| 860T | 1.5mm ² 6 Core Cable | 890T | 0.75mm ² 6 Core Cable | SCHG-30T | 1.5mm ² 6 Core Cable | SMH-30T | 1.5mm ² 6 Core Cable |

Please Note:- Specified cable sizes are for typical installations, correction factors may need to be used when determining actual cable sizes.

5. Heater Models – RH-20 / RH-30



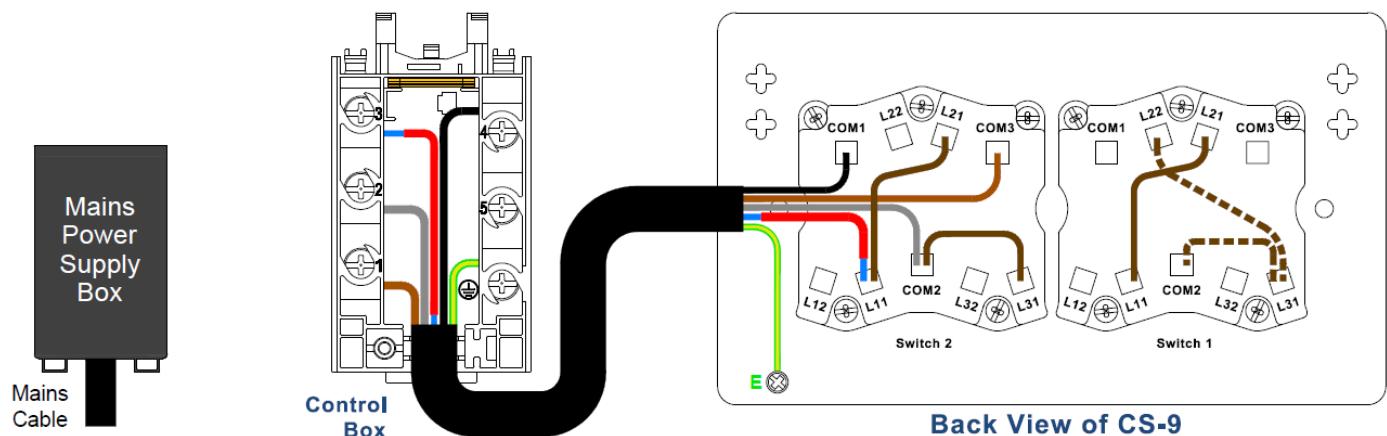
Use 5 Core Control Cable to connect the Heater to the CS-9 controller. For sizes see table below (also see note above). You can use Heater 1 or Heater 2 switch.

Ensure the dark brown link wires are in the correct position in the CS-9 controller for the heater you are using as shown above. Remove any links that may be present in heater control box between terminals 1,2,3,4 or 5. For Mains cable wiring and sizes see instructions with each Heater.

Control Box to CS-9 Switch Cable sizes (See note at top of page)

| Model No. | Minimum Wire Size | Model No. | Minimum Wire Size | Model No. | Minimum Wire Size | Model No. | Minimum Wire Size |
|-----------|----------------------------------|-----------|---------------------------------|-----------|-------------------|-----------|-------------------|
| RH-20 | 1.25mm ² 5 Core Cable | RH-30 | 1.5mm ² 5 Core Cable | | | | |

6. Heater Models – 830 / CAS-30 / SCHG-30 / RH-20 / RH-30



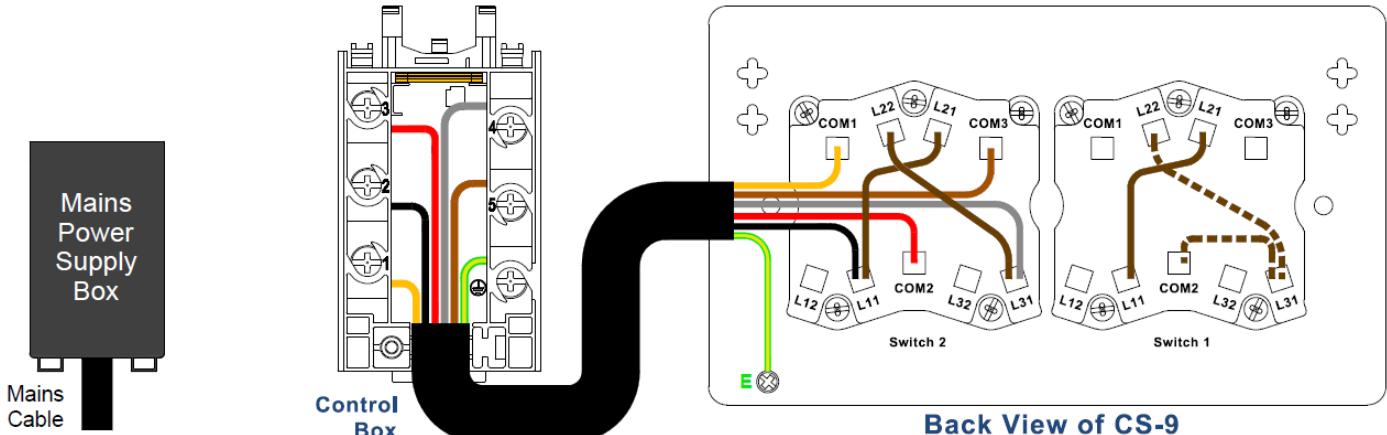
Use 5 Core Control Cable to connect the Heater to the CS-9 controller. For sizes see table below (also see note above). You can use Heater 1 or Heater 2 switch.

Ensure the dark brown link wires are in the correct position in the CS-9 controller for the heater you are using as shown above. Remove any links and link cable that are present in the heater control box between terminals 1,2,3,4 or 5. For Mains cable wiring and sizes see instructions with each Heater.

Control Box to CS-9 Switch Cable sizes (See note at top of page)

| Model No. | Minimum Wire Size |
|-----------|---------------------------------|-----------|---------------------------------|-----------|---------------------------------|-----------|----------------------------------|
| 830 | 1.5mm ² 5 Core Cable | CAS-30 | 1.5mm ² 5 Core Cable | SCHG-30 | 1.5mm ² 5 Core Cable | RH-20 | 1.25mm ² 5 Core Cable |
| RH-30 | 1.5mm ² 5 Core Cable | | | | | | |

7. Heater Models – 830T / SCHG-30T



Use 6 Core Control Cable to connect the Heater to the CS-9 controller. For sizes see table below (also see note above). You can use Heater 1 or Heater 2 switch.

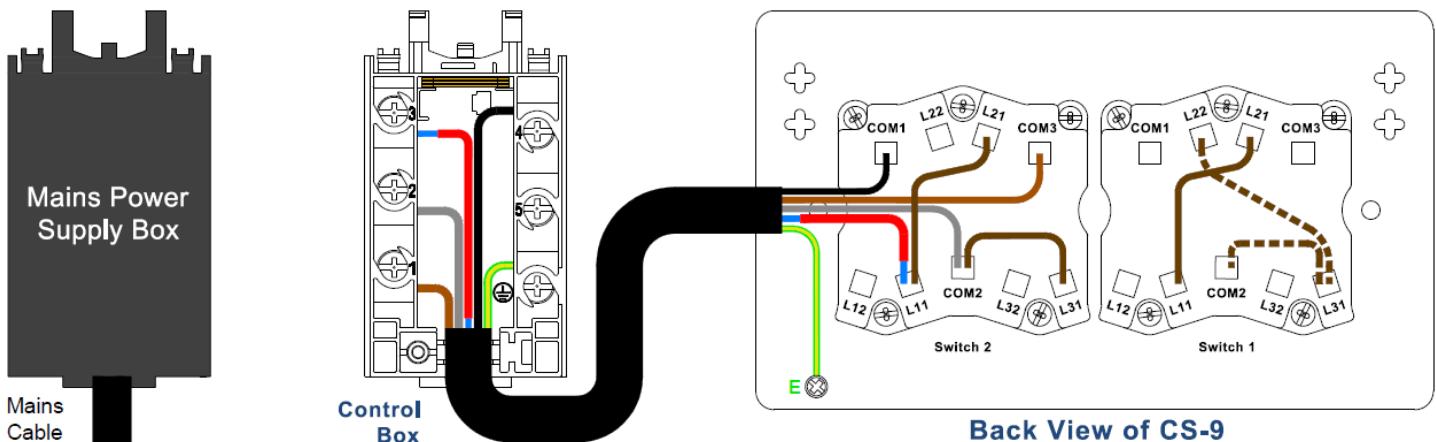
Ensure the dark brown link wires are in the correct position in the CS-9 controller for the heater you are using as shown above. Remove any links and link cable that are present in the heater control box between terminals 1,2,3,4 or 5. For Mains cable wiring and sizes see instructions with each Heater.

Control Box to CS-9 Switch Cable sizes (See note at top of page)

| Model No. | Minimum Wire Size | Model No. | Minimum Wire Size | Model No. | Minimum Wire Size | Model No. | Minimum Wire Size |
|-----------|---------------------------------|-----------|---------------------------------|-----------|-------------------|-----------|-------------------|
| 830T | 1.5mm ² 6 Core Cable | SCHG-30T | 1.5mm ² 6 Core Cable | | | | |

Please Note:- Specified cable sizes are for typical installations, correction factors may need to be used when determining actual cable sizes.

8. Heater Models – 860 / 890 / CAD-60 / CAD-90 / CAT-90 / CAT-135 / CAH-180 / SCHG-45 / SCHG-60 / SMH-30 / SMH-45 / SMH-60 / RH-60



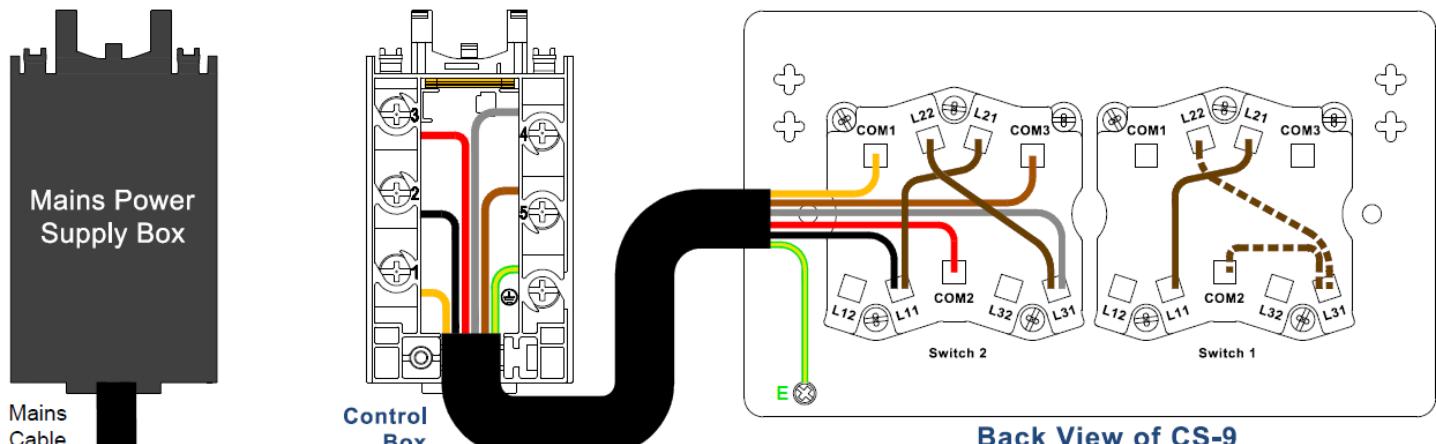
Use 5 Core Control Cable to connect the Heater to the CS-9 controller. For sizes see table below (also see note above). You can use Heater 1 or Heater 2 switch.

Ensure the dark brown link wires are in the correct position in the CS-9 controller for the heater you are using as shown above. Remove any links  and link cable that are present in the heater control box between terminals 1,2,3,4 or 5. For Mains cable wiring and sizes see instructions with each Heater.

Control Box to CS-9 Switch Cable sizes (See note at top of page)

| Model No. | Minimum Wire Size | Model No. | Minimum Wire Size | Model No. | Minimum Wire Size | Model No. | Minimum Wire Size |
|-----------|----------------------------------|-----------|----------------------------------|-----------|---------------------------------|-----------|---------------------------------|
| 860 | 1.5mm ² 5 Core Cable | CAT-90 | 0.75mm ² 5 Core Cable | SCHG-45 | 2.5mm ² 5 Core Cable | SMH-30 | 1.5mm ² 5 Core Cable |
| 890 | 0.75mm ² 5 Core Cable | CAT-135 | 0.75mm ² 5 Core Cable | SCHG-45R | 1.5mm ² 5 Core Cable | SHM-45 | 2.5mm ² 5 Core Cable |
| CAD-60 | 1.5mm ² 5 Core Cable | CAH-180 | 0.75mm ² 5 Core Cable | SCHG-60 | 1.5mm ² 5 Core Cable | SHM-45R | 1.5mm ² 5 Core Cable |
| CAD-90 | 0.75mm ² 5 Core Cable | | | RH-60 | 1.5mm ² 5 Core Cable | SMH-60 | 1.5mm ² 5 Core Cable |

9. Heater Models – 860T / 890T / SMH-30T



Use 6 Core Control Cable to connect the Heater to the CS-9 controller. For sizes see table below (also see note above). You can use Heater 1 or Heater 2 switch.

Ensure the dark brown link wires are in the correct position in the CS-9 controller for the heater you are using as shown above. Remove any links  and link cable that are present in the heater control box between terminals 1,2,3,4 or 5. For Mains cable wiring and sizes see instructions with each Heater.

Control Box to CS-9 Switch Cable sizes (See note at top of page)

| Model No. | Minimum Wire Size | Model No. | Minimum Wire Size | Model No. | Minimum Wire Size | Model No. | Minimum Wire Size |
|-----------|---------------------------------|-----------|----------------------------------|-----------|---------------------------------|-----------|-------------------|
| 860T | 1.5mm ² 6 Core Cable | 890T | 0.75mm ² 6 Core Cable | SMH-30T | 1.5mm ² 6 Core Cable | | |

PLEASE CHECK ALL CONNECTIONS BEFORE TURNING ON AS INCORRECT WIRING IS NOT COVERED BY THE GUARANTEE

NOTE: It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice.

IMPORTANT: No liability is accepted for incorrect use of this product.

WARRANTY: Your BN Thermic product is guaranteed for one year from date of purchase. We will repair or replace at our discretion any part found to be defective. We cannot assume any consequential liability. This guarantee in no way prejudices your rights under common law and is offered as an addition to consumer liability rights.

BN Thermic Ltd,
34 Stephenson Way,
Crawley, RH10 1TN
Tel: 01293 547361
sales@bnthermic.co.uk
www.bnthermic.co.uk