

## INSTALLING THE ENERGY MINDER

The Energy Minder is designed to control domestic boilers. Please read these instructions and study the diagrams carefully before installation. Incorrect wiring may cause permanent damage to the unit rendering the warranty void.

Wiring should be carried out by a qualified electrician with a good understanding of central heating systems. All wiring must be carried out according to current regulations and local codes of practice.

**Safety!** Make absolutely certain that the electricity supply is isolated before commencing the installation.

## SITING AND FIXING THE CONTROLLER

Position the controller at a position that is convenient for the user and where the pre-wired sensors and mains harness will reach their relevant connections. Use a standard junction box to terminate mains connections as shown in the wiring diagram.

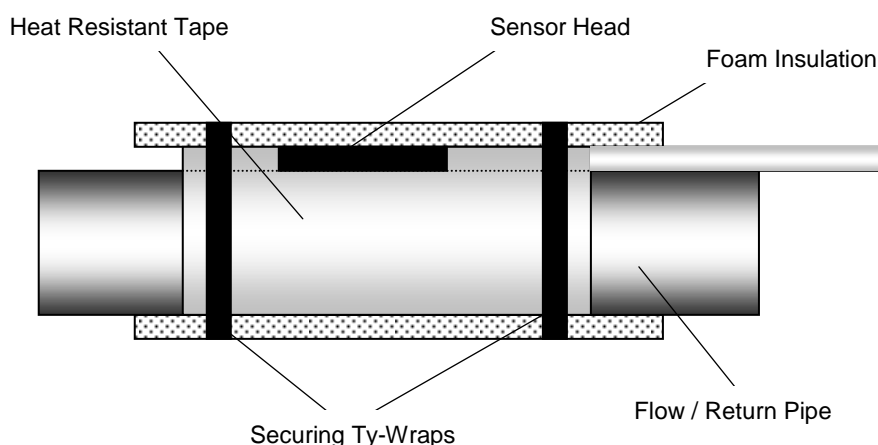
Do not allow the cables to come into direct contact with the hot area of the heat exchanger or flue components.

Mount the controller using the keyhole slot on the rear of the unit and secure in position with the attached bracket (if the unit is a weather compensation version the lower fixing points are behind the cover of the attached junction box).

## FITTING THE SENSORS

The Energy Minder has two sensors, one for the FLOW pipe (RED) and one for the RETURN pipe.

The pipework should be cleaned with wire wool at the sensor contact point. Fit the sensor flat to the pipe and secure tightly using heat resistant tape such as duct tape split into 25mm strips or high temperature fibre glass cloth tape (do not use standard electrical insulation tape). Cover the sensor element and beyond with 3-4 layers of tape and foam sleeve to provide good insulation. Ty-wraps are used to secure the foam insulation sleeve (see diagram). **DO NOT APPLY TY-WRAPS OVER THE SENSOR HEAD AS DAMAGE MAY OCCUR.**



## **EXTERNAL SENSOR (Optional)**

The optional **External Sensor** should preferably be positioned on a north facing exterior wall, and connected via the provided junction box attached to the base of the Energy Minder. Connect the blue and yellow wires of the 4-core cable provided with the sensor to the corresponding blue and yellow terminals in the junction box.

On long cable runs the remaining cores should be connected to the blue cable to prevent interference.

If it is not possible to mount the sensor on a north facing wall then mount in a shaded position, under eaves, and away from boiler house vent grilles etc.

## **MAINS WIRING**

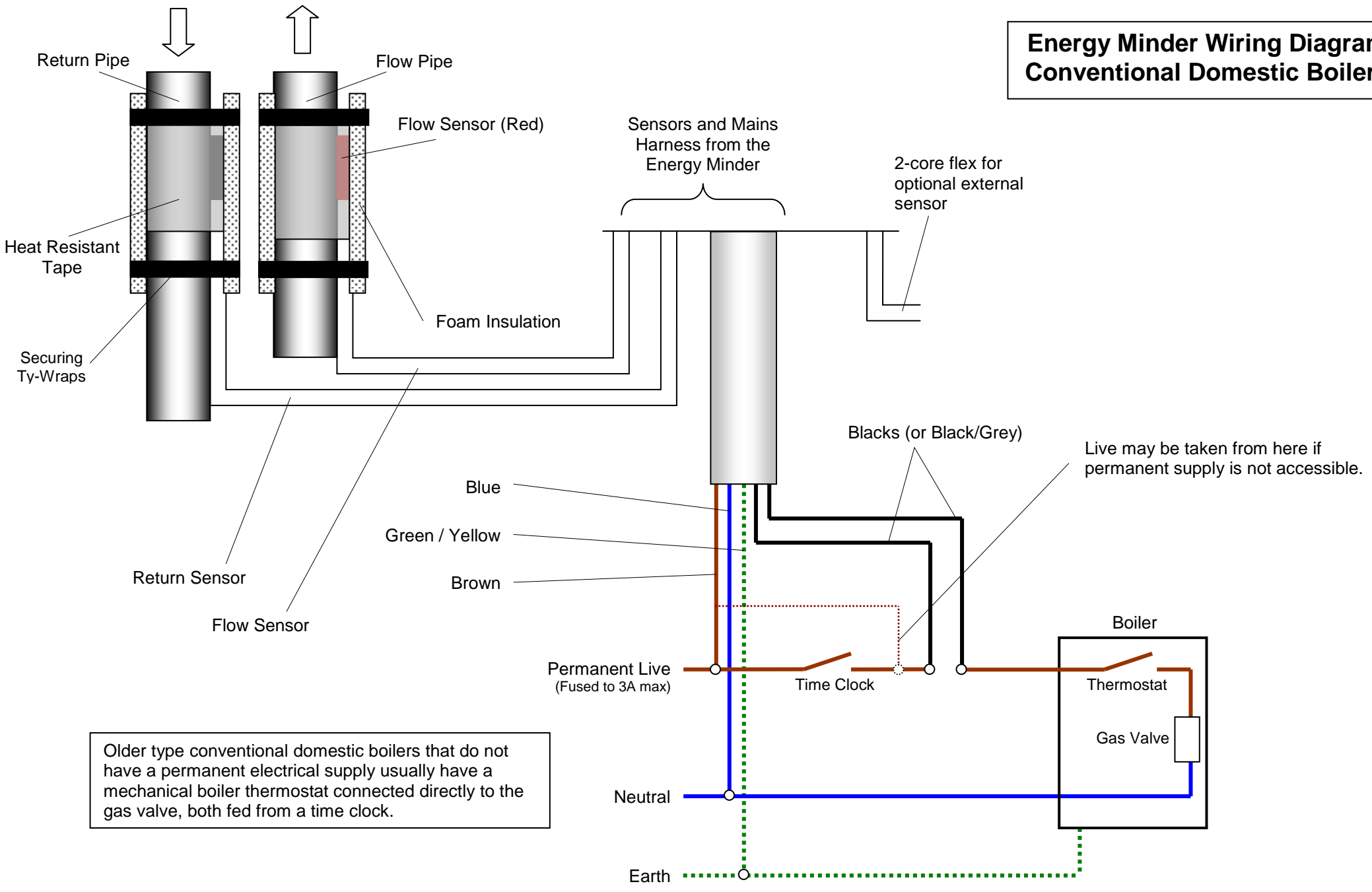
Carry out the mains wiring as per the diagrams provided.

**NOTE:** All Energy Minders are factory tested and calibrated. Most reported problems are due to incorrect wiring, poorly fitted sensors or an unclear understanding of the operation of the controller.

The installer should read the USER INSTRUCTIONS carefully so that he can confidently explain the unit's operation to the user. This will reduce recalls due to user misunderstandings etc.

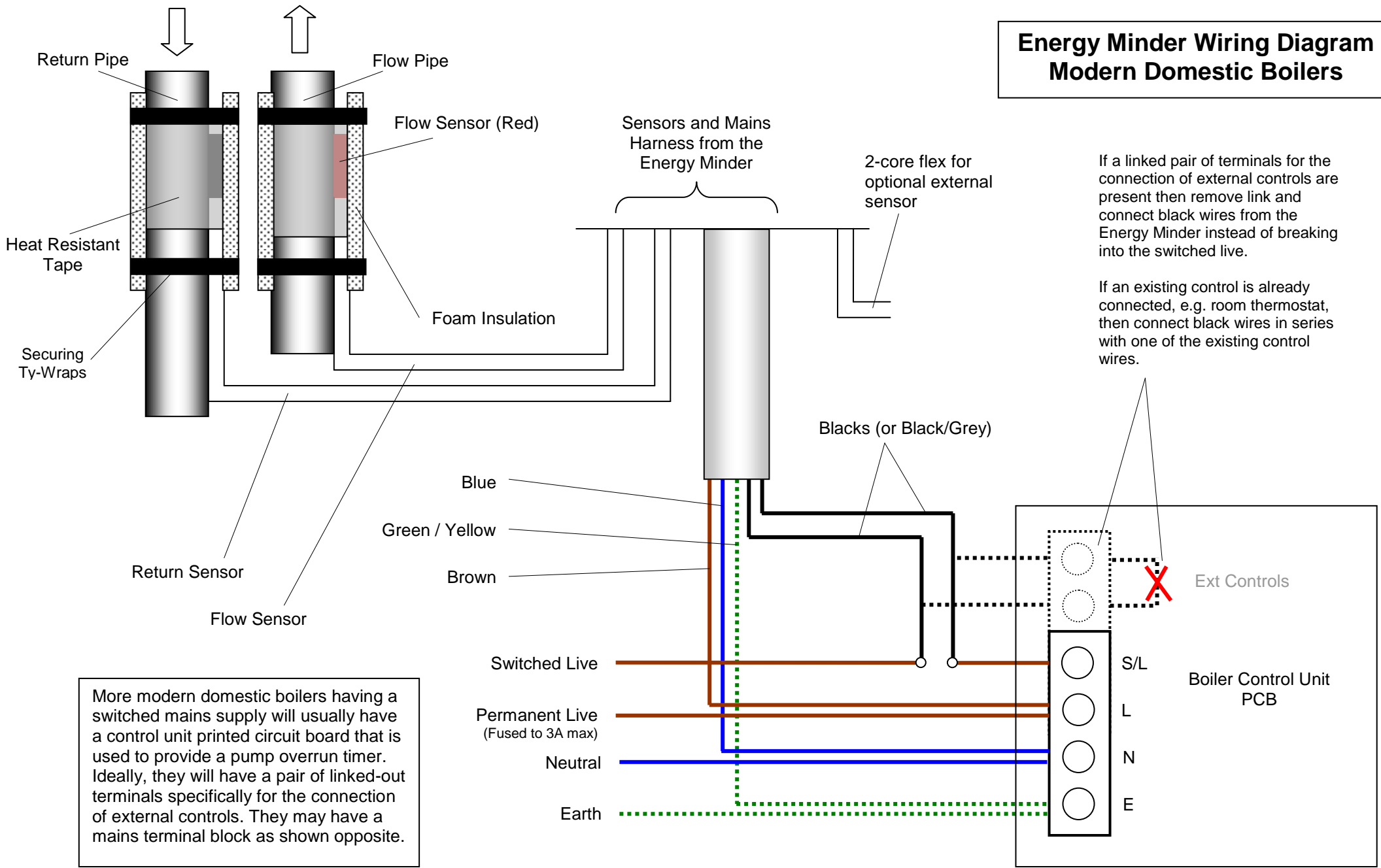
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# Energy Minder Wiring Diagram Conventional Domestic Boilers



Older type conventional domestic boilers that do not have a permanent electrical supply usually have a mechanical boiler thermostat connected directly to the gas valve, both fed from a time clock.

# Energy Minder Wiring Diagram Modern Domestic Boilers



If a linked pair of terminals for the connection of external controls are present then remove link and connect black wires from the Energy Minder instead of breaking into the switched live.

If an existing control is already connected, e.g. room thermostat, then connect black wires in series with one of the existing control wires.

More modern domestic boilers having a switched mains supply will usually have a control unit printed circuit board that is used to provide a pump overrun timer. Ideally, they will have a pair of linked-out terminals specifically for the connection of external controls. They may have a mains terminal block as shown opposite.