

INSTALLATION/OPERATING INSTRUCTIONS

NETWORK POWER SUPPLY

The Network Power Supply (NPS) provides power for Heat-Timer network sensors. These can include all of the following:

4-20mA Transmitter	HT# 904043-00
Network Stack Temperature Sensor	HT# 904048-00
Network Pressure Sensor (0-30psi)	HT# 904065-00
Network Pressure Sensor (0-200psi)	HT# 904066-00
Network Pressure Sensor (0-100psi)	HT# 904067-00
Network Room Space Temperature Sensor	HT# 904041-00
Water Counter	HT# 904075-00
Network Immersion Sensor	HT# 904044-00
Network Immersion Sensor Retrofit	HT# 904046-00

The NPS outputs 42VDC \pm 1% and can power up to 32 network sensors.

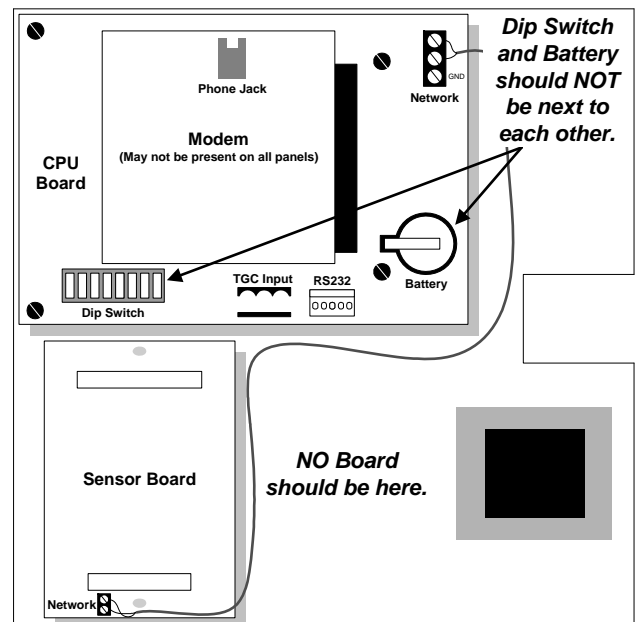
IMPORTANT: If the Heat-Timer network consists *ONLY* of MIGs, Wirelss Sensor Link Recievers, or Oil Tank Levels (auxiliary input boxes for temperature sensors or dry contact inputs), a NPS is not needed. The NPS is only needed to power the network sensors listed above.

INSTALLATION

Checking the Heat-Timer CPU (HWR, HWRQ, MPC, MPCQ, or SRC)

- Remove the three screws which hold the panel in the enclosure.
- Tilt the panel out and check the configuration of the boards on the back. The boards should appear as shown to the right.
- If the Dip Switch and the Battery are next to each other the CPU board must be upgraded before the network can be installed. Contact the factory.
- Also, if a modem board is located below the CPU board, the CPU must be upgraded.

CAUTION: If the configuration and parts of the rear boards do not match the picture at right, contact the factory before proceeding.

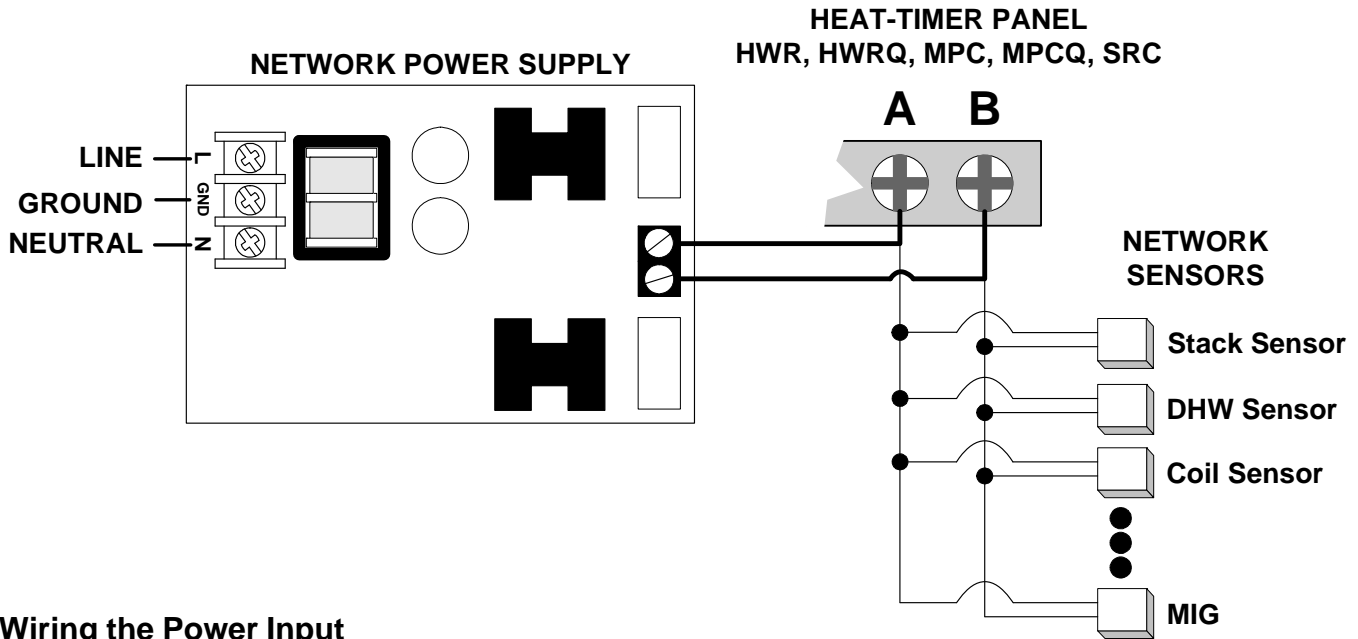


Mounting the Network Power Supply

- Locate the Network Power Supply (NPS) in any convenient location near a Heat-Timer panel (HWR, HWRQ, MPC, MPCQ or SRC).
- Keep the NPS away from extreme heat or cold. Ambient operating temperature is from 20 to 120°F.
- The surface should be flat, and be sufficiently wide and strong to hold the NPS.
- Remove the NPS cover to reveal the mounting holes.
- Screw the NPS base to the surface through the mounting holes

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HT #059200-00 REV C



Wiring the Power Input

- The NPS requires 120VAC 60hz power.
- Connect the hot line to the terminal marked *L*. Connect the neutral line to the terminal marked *N*.
- The terminal marked *GND* must be connected to earth ground.

Wiring the Output

- Use 2-wire **unshielded twisted pair** (specification below).
- There is no polarity to observe. Either NPS output terminal can be wired to either terminal *Network Sensor A* or *B* on the Heat-Timer panel (HWR, HWRQ, MPC, MPCQ or SRC).

TROUBLESHOOTING

Checking the NPS Power Output

- Remove any wires connected to the NPS outputs.
- Test for 42VDC across the two screw terminals. If there is no voltage, and the 120VAC power in is present, the NPS may be damaged. Call the factory for further assistance.
- If 42VDC is present, reconnect the NPS to the network and continue on to the next section.

Testing Power on the Network

- Test for 42VDC across the NPS output terminals (with the network wiring connected). If 42VDC is present, the network is receiving the appropriate power.
- If 42VDC is not present, check the network wiring for shorts. If the wiring is correct, remove network sensors one at a time from the network until the defective sensor is located.

If Network Sensors Register DISCONNECTED

- First check that the network power is correct as described in the previous two sections.
- Go to the sensor reading DISCONNECTED and check for network power (42VDC) at the sensor's *Network Terminals*. If network power is not present, check for breaks in the network wiring.
- If network power is present at the sensor's *Network Terminals*, check the type of sensor wiring (specification below).

Wire	Type	Gauge	Maximum Length (ft)	Maximum Temp (°F)
Belden 8471	Unshielded Twisted Pair	16AWG	1200	140
Belden 85102	Unshielded Twisted Pair	16AWG	1500	185