



TROUBLE SHOOTING CHECKLIST

1. When was the system installed? _____
2. What size Cable/Mat was installed? _____
3. What type of thermostat was installed? _____
4. Were pictures take of the heating system installation? _____
5. What is the main problem with the heating system? _____

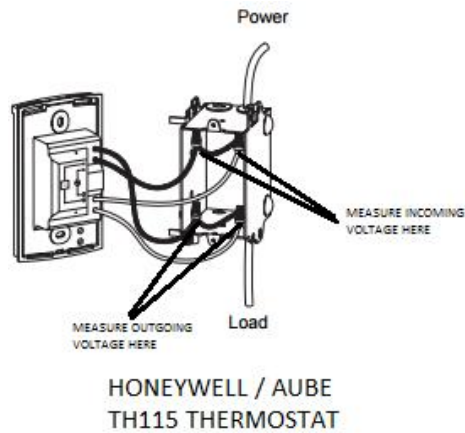
6. Did the system operate initially? How long? _____
7. Does the whole fail to heat or just part of it? _____
8. Has the cable/mat been altered in any way? (cut, shortened, repaired) _____
9. What is the sub-floor construction? (concrete / or / wood) _____
10. What is under this floor? (second floor, crawl space, on slab) _____
*** If the heating system was installed on a slab without insulation between the heating system and slab, it can take up to 48 hours to warm the floor.*
11. For Cable kits, what cable spacing was used? How far apart are the cables? _____
12. How deep are the cables buried? _____
13. Have any flooring modifications or repairs recently been made in the area? _____
14. Is it possible that the heating system was damaged during installation? _____
15. Where is the thermostat sensor installed in respect to the heating cables? _____

TESTING THERMOSTAT

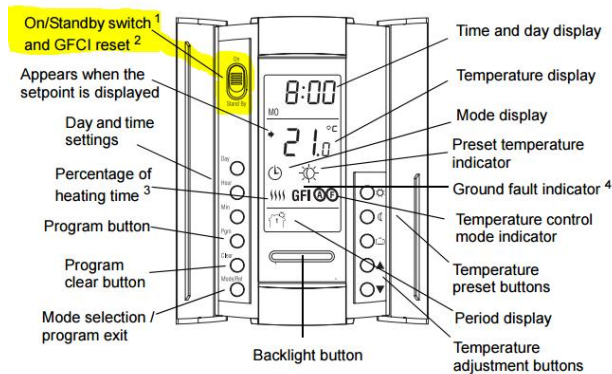
Does the thermostat Light up?

NO, Thermostat does not light up

- Is there power to the thermostat? Breaker On?
 - Check this by measuring the incoming voltage.



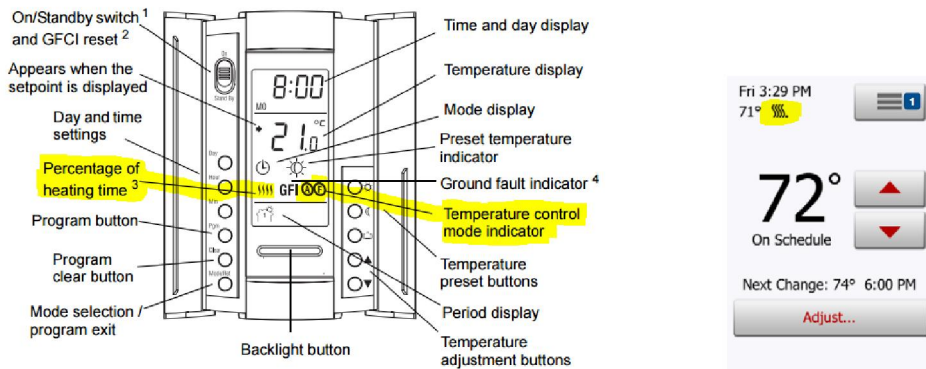
- On the Aube thermostat, is the top left switch in the up (On) position



- Is the thermostat wired correctly? “LOAD” wires go to the heating system; “LINE” wires go to the circuit breaker

YES, Thermostat lights up

Is the thermostat calling for heat? Thermostat will show squiggly lines when calling for heat?



NO, there are no squiggly lines

- Turn up the set point temperature
- On the Aube thermostat, make sure the Temperature control mode is in “F” (floor sensor) mode. On the back of the faceplate switch #3 should be in the Up position for “F” mode.
- On the OJ Microline thermostat, make sure “floor” is selected under “sensor application”.

YES, Thermostat is calling for heat

- Using a Multimeter, measure output voltage on “Load” wires. See graphic above showing where to measure output voltage.

Is there voltage?

NO, there is no voltage across “Load Wires”

- Thermostat is defective. There should be voltage across the load wires / connectors when the thermostat is calling for heat (squiggly lines).

YES, there is either 120VAC or 240 VAC across “Load Wires”

- The thermostat is working correctly. Test heating system.

TEST HEATING SYSTEM

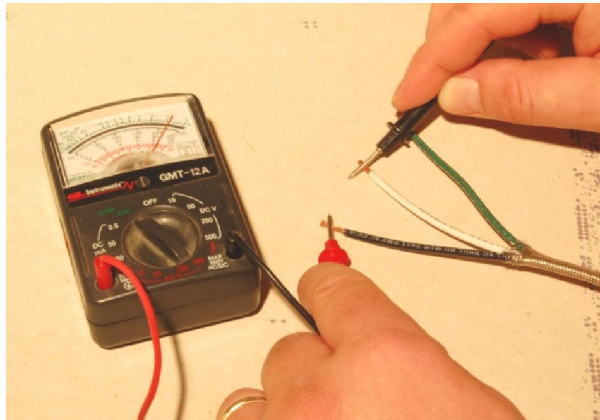
Turn off electric breaker and completely disconnect thermostat from heating system.

On the heating system's cold lead:

- Measure Ohms between black & white wires _____ Ω

This measured resistance should be within range corresponding to size of heating system. See chart below for resistance range.

If there is no resistance reading, it indicates a break in the heating element.

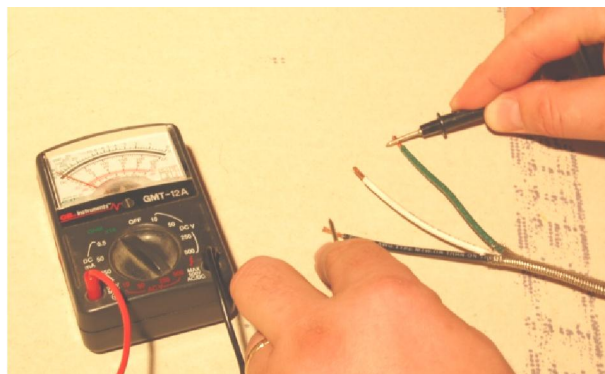


- Measure ohms between black to ground _____ Ω

- Measure ohms between white to ground _____ Ω

These resistances reading should be “infinite” or “open” confirming that there is no short to ground.

Be careful not to have your fingers touching the meter probes. It is possible to measure the resistance through your body, giving you a false short.



If you have a heating system with a broken heating element or short to ground, we recommend going to a local tile store that sells electric floor heating systems and ask them for a contact of someone who has experience locating and repairing breaks in floor heating systems.

WARMING SYSTEMS HEATING SYSTEM SPECIFICATIONS

<u>Voltage</u>	<u>Square Footage</u>	<u>Total Ohms</u>	<u>Ohm Range</u>		<u>Amps</u>	<u>Total Watts</u>
120	10	120	144	86	1.0	120
120	15	80	96	54	1.5	180
120	20	60	72	38	2.0	240
120	25	48	58	28	2.5	300
120	30	40	48	22	3.0	360
120	35	34	41	19	3.5	420
120	40	30	36	18	4.0	480
120	45	27	32	16	4.5	540
120	50	24	29	15	5.0	600
120	55	22	29	15	5.5	660
120	60	20	24	13	6.0	720
120	65	19	24	13	6.5	780
120	70	17	21	12	7.0	840
120	75	16	21	12	7.5	900
120	80	15	18	10	8.0	960

240	20	240	288	182	1.0	240
240	30	160	192	118	1.5	360
240	40	120	144	85	2.0	480
240	50	96	115	67	2.5	600
240	60	80	96	54	3.0	720
240	70	69	82	45	3.5	840
240	80	60	72	37	4.0	960
240	90	53	64	32	4.5	1080
240	100	48	58	31	5.0	1200
240	110	45	58	31	5.5	1320
240	120	40	48	22	6.0	1440
240	130	38	48	22	6.5	1560
240	140	34	41	20	7.0	1680
240	150	32	41	20	7.5	1800
240	160	30	36	19	8.0	1920