

Service Bulletin 083

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Maximum Number of Thermostats on a tekmarNet[®] Bus

The tekmarNet[®] addressing system allows a maximum of 24 thermostats or setpoint controls for each tN4 communication bus. However, some thermostats require more messages to operate and this reduces the total number of thermostats that can be connected. The following tables show how to calculate the maximum number of thermostats allowed per tN4 bus. For each thermostat or setpoint control, add its communication budget. The total cannot exceed 24.

System Without Gateway 482 or 483

Thermostat Operation	Thermostat Models	Communication Budget per Thermostat
Heat only	161, 162 527, 528, 529, 537, 538 541, 542, 543 552	1.0
Heat, Cool, Fan	530, 540 544, 545, 546 553, 557	1.1

System With Gateway 482 or 483

Thermostat Operation	Thermostat Models	Communication Budget per Thermostat
Heat only	161, 162 527, 528, 529, 537, 538 541, 542, 543 552	1.0
Heat, Cool, Fan	530, 540 544, 545, 546 553	1.6
Heat, Cool, Fan, Humidity	557	1.7

Example: Can a tN4 bus have 10 of 557 and 4 of 552 when connected to a gateway?

557 communication budget: $10 \times 1.7 = 17$ 552 communication budget: $4 \times 1.0 = 4$

Total communication budget: $17 + 4 = 21$

Since the total communication budget is less than 24, 10 of the 557 and 4 of the 552 can be connected to a single tN4 bus with a gateway.