

tekmar® Submittal

tekmarNet® 4 Thermostat 545



Zoning

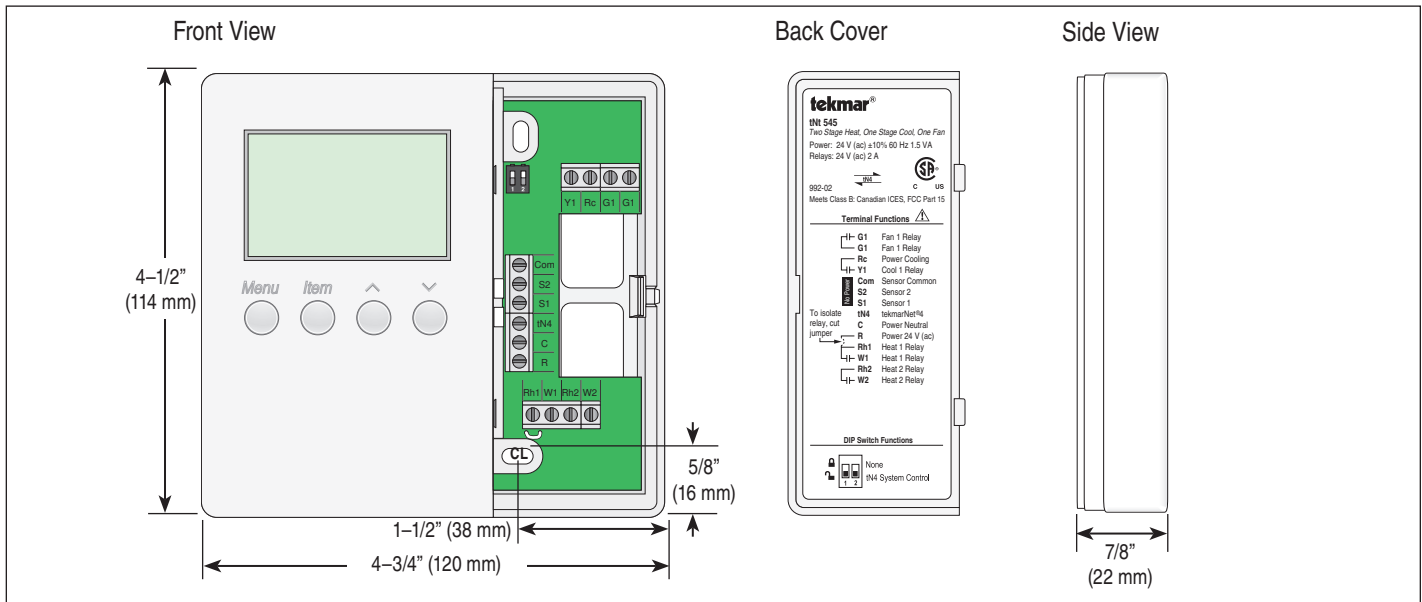
C 545

01/11

Replaces: New

Job _____ Designer _____ Contact _____

The tekmarNet® 4 Thermostat 545 is designed to operate mechanical equipment to deliver 2 stages of heating and cooling to a single zone within a hydronic heating system while maintaining a programmable setback schedule. It can be used with any terminal unit type, including radiant floor, baseboard, fan coils, and non-hydronic sources. This product is capable of controlling 2 zone valves or pumps directly or through a tekmarNet® 4 Wiring Center or Zone Manager, a cooling device, and a fan, while reading up to 2 auxiliary sensors. These could be floor, outdoor, duct, or remote air sensors.



Specifications

tekmarNet® 4 Thermostat 545 Two Stage Heat, One Stage Cool, One Fan	
Literature	D545, W545, J545, U545
Control	Microprocessor control. This is not a safety (limit) control
Packaged weight	1.2 lb. (540 g)
Dimensions	4-1/2" H x 4-3/4" W x 7/8" D (114 x 120 x 22 mm)
Enclosure	White PVC plastic, NEMA type 1
Approvals	CSA C US, meets Class B: ICES & FCC Part 15
Ambient conditions	Indoor use only, 32 to 122°F (0 to 50°C), RH ≤80% to 88°F (31°C), down to 50% above 104°F (40°C), Altitude <6560 ft. (2000 m), Installation Category II, Pollution Degree 2
Power supply	24 V (ac) ± 10%, 60 Hz, 1.5 VA
W1 & W2 relays	24 V (ac) 2 A max
Y1 & G1 relays	24 V (ac) 2 A max
Sensors	NTC thermistor, 10 kΩ @ 77°F (25°C ±0.2°C) β=3892
-Included	None
-Optional	tekmar type # 070, 071, 072, 073, 076, 077, 078, 079, 082, 083, 084
Warranty	Limited 3 Year (See D545 for full warranty)

Energy Saving Features

- Zone Synchronization
- Zone Post Purge
- Programmable setback schedule
- One touch overrides (with optional User Switch)
- Auto Heating Cycle
- Cooling Interlock

Additional Features

- tekmarNet® 4 communication compatible
- Requires 9 wires
- Two stage Heat, one stage Cool, and Fan
- Pulse Width Modulation
- CSA C US Approved for use in USA and Canada
- Outdoor temperature display
- Cool Group Master
- Backlight
- Freeze Protection
- Equipment Exercising
- 2 auxiliary sensor inputs

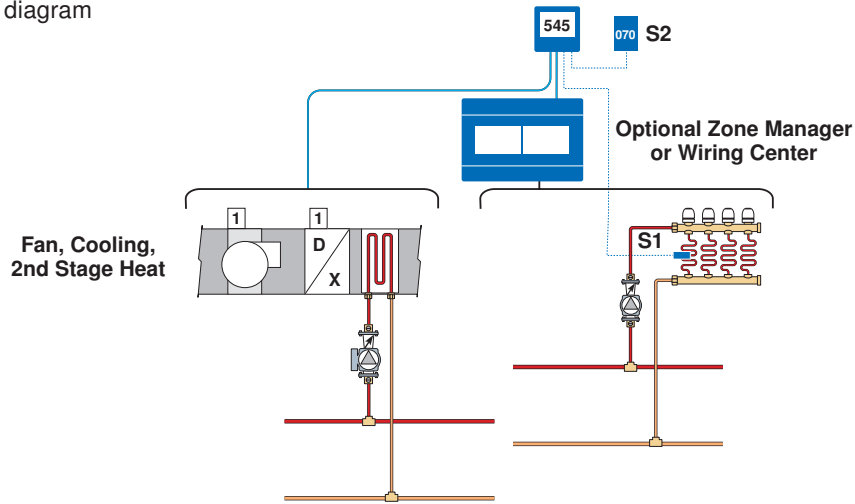
SPECIAL REQUIREMENTS

This thermostat is designed to be used with a tekmarNet® 4 Wiring Center or Zone Manager for power and communication. It can also be used in stand alone applications.

Sample Application Drawing

Below is a sample application drawing for this product. This application may include other tekmar products that are required for installation. More sample applications can be found at www.tekmarcontrols.com.

Sample Mechanical diagram



Sample Electrical diagram

Legend

S1 = Slab Sensor
S2 = Outdoor Sensor

tekmar®
tNt 545
 Two Stage Heat, One Stage Cool, One Fan
 Power: 24 V (ac) ±10% 60 Hz 1.5 VA
 Relays: 24 V (ac) 2 A

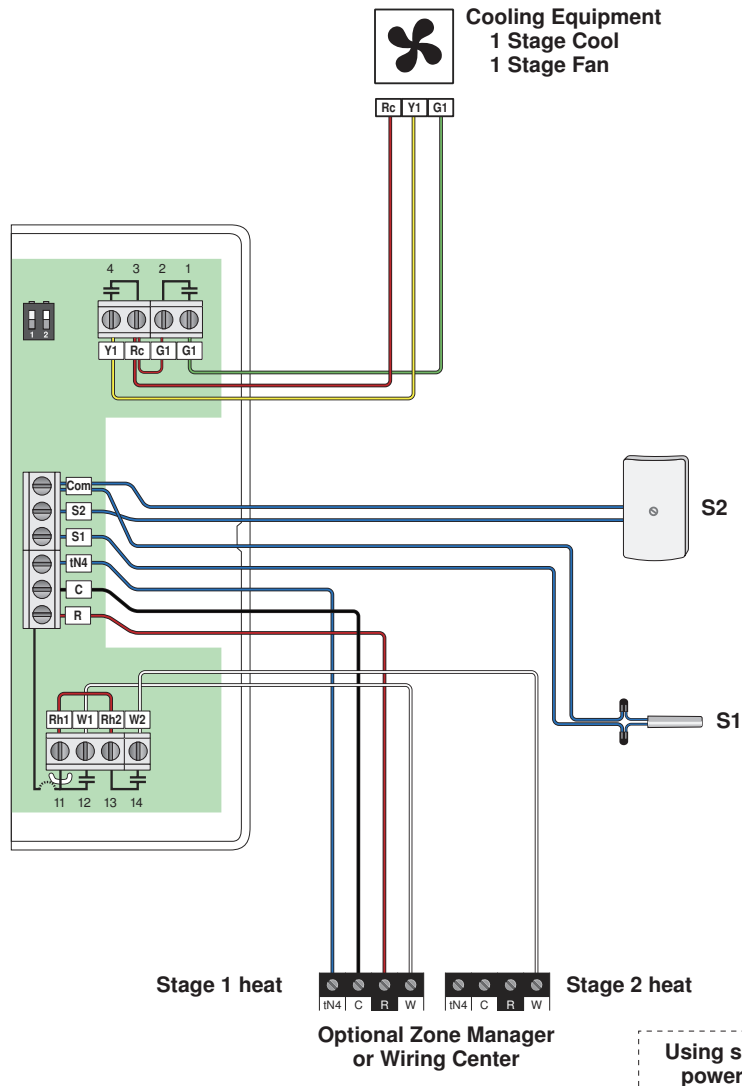
992-02
 Meets Class B: Canadian ICES, FCC Part 15

Terminal Functions

- G1 Fan 1 Relay
- G1 Fan 1 Relay
- Rc Power Cooling
- Y1 Cool 1 Relay
- Com Sensor Common
- S2 Sensor 2
- S1 Sensor 1
- tN4 tekmarNet® 4
- C Power Neutral Power 24 V (ac)
- R To isolate relay, cut jumper
- Rh1 Heat 1 Relay
- W1 Heat 1 Relay
- Rh2 Heat 2 Relay
- W2 Heat 2 Relay

DIP Switch Functions

- None
- tN4 System Control



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