

tekmar[®]

tekmarNet[®]2 Thermostat 528



Zoning

U528

08/10

Replaces: 03/09

Congratulations on the purchase of your tekmarNet[®] Thermostat! This product contains the most advanced HVAC control technology in order to ensure that your heating system runs more efficiently and provides you with the highest level of comfort.

User Manual



This brochure will provide you with the information you need to benefit the most from your tekmarNet® thermostat. Please visit www.tekmarcontrols.com for more detailed information on this or any other tekmar product.

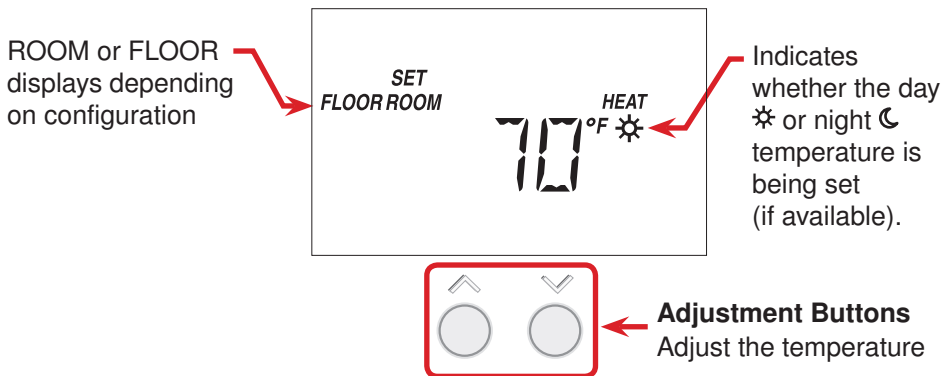
This thermostat provides heating for one zone in your building. It will maintain your air temperature with an on board ROOM sensor, but may also have an auxiliary ROOM, FLOOR, or OUTDOOR sensor attached. A ROOM sensor will allow control of a location other than the one in which the thermostat is installed. An outdoor sensor will allow this and all other tekmarNet® thermostats in your building to display the outdoor temperature on their displays. A floor sensor will allow this thermostat to control your floor temperature. This thermostat can maintain floor temperature only, air temperature only, or floor and air temperature together.

With the addition of one of tekmar's energy saving accessories, this thermostat can also lower its temperature setting at night or when you are away from the house.

Temperature Adjustment

This thermostat can operate at day ☀ or night 🌙 temperatures (see "Day ☀ or Night 🌙 Temperatures" section) for ROOM or FLOOR settings. The temperature can be adjusted as follows:

Step 1:	Press the ▲ or ▼ button until the desired temperature is displayed.
Step 2:	Release all buttons and wait for the display to return to normal operation. The adjusted settings will be saved in memory.



You will be adjusting the temperature of the current operating mode. To adjust temperature settings that are not shown on the screen, you must enter into the Adjust Menu as described in the "Adjust Menu" section. There may be other symbols on the screen that affect thermostat operation. Please see the "Display Symbols" section for a description of each symbol.

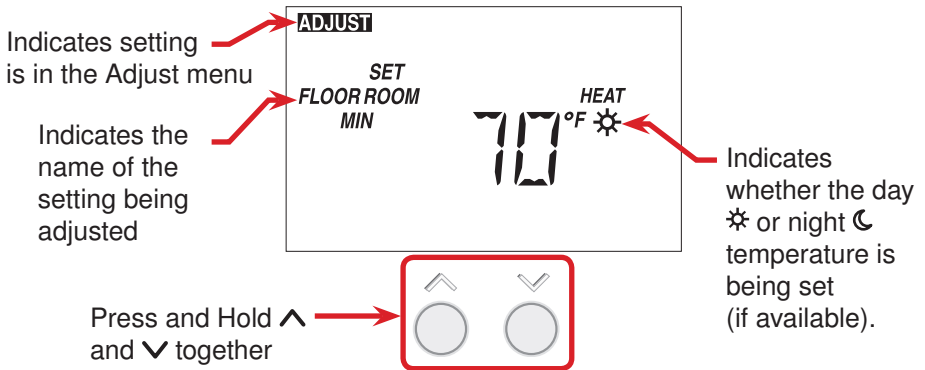
Adjust Menu

This thermostat has an Adjust Menu that allows adjustment of all of its settings. The following items can be adjusted or viewed:

- Day ☀ and night 🌙 temperatures (if available)
- Floor temperatures
- Backlight on-time
- Temperature units °F or °C
- Thermostat type (view only)

The Adjust Menu can be accessed as follows:

Step 1:	Press and hold the ▲ and ▼ buttons until the desired setting is shown (a new screen will appear every 2 seconds).
Step 2:	Press the ▲ or ▼ button to adjust the temperature setting.
Step 3:	Press and hold the ▲ and ▼ buttons again to advance to the next adjustable setting. Repeat steps 1 and 2 until all adjustments have been made.
Step 4:	Release all buttons and wait for the display to return to normal operation. The adjusted settings will be saved in memory.

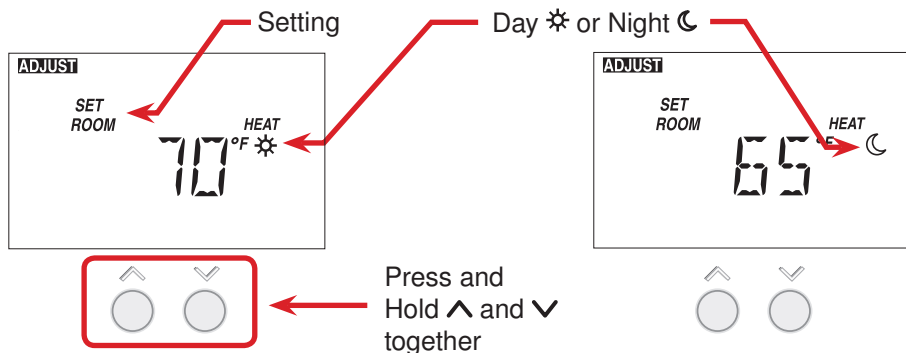


This thermostat has access levels. It will typically be installed and programmed by a heating professional and then locked in a "User" access level. System critical settings will not be available for adjustment. For more information on these settings, please consult your installing contractor or this product's Installation and Operation Manual. The following pages describe the settings available to the "User".

Day ☀ and Night ☾ Temperatures

This thermostat is capable of running at a lower temperature setting when you are asleep or out of the building. An energy saving accessory can be added to your tekmarNet® system in order to activate these energy saving setback temperatures. If one is connected, day ☀ and night ☾ temperature settings will be available. They are adjusted as follows:

Step 1:	Press and hold the ▲ and ▼ buttons to enter the Adjust Menu, and wait until the desired setting is shown with the day ☀ symbol on the screen (a new setting will appear every 2 seconds).
Step 2:	Press the ▲ or ▼ button to adjust the temperature setting.
Step 3:	Press and hold the ▲ and ▼ buttons until the same setting is shown with the night ☾ symbol on the screen.
Step 4:	Press the ▲ or ▼ button to adjust the temperature setting.
Step 5:	Release all buttons and wait for the display to return to normal operation. The adjusted settings will be saved in memory.



tekmarNet® Energy Saving Accessories



479 User Switch

With the touch of a button, tell every thermostat in your house to operate at their night setback ☾ or **Away** temperature.



033 Timer

Program a night setback schedule for all of your thermostats with one device.

Examples of these settings are as follows:

Mode of Operation	day ☀	night ☾
ROOM example:	70°F (21°C)	65°F (18°C)
FLOOR MINIMUM example:	72°F (22°C)	OFF

Note: The presence of a schedule is indicated by the ⌚ clock symbol.

Floor Temperatures

If your thermostat has a floor sensor connected to it, floor temperature can be maintained. This allows you to have warm floors even during milder times of the year when the air temperature is warm enough or when your air conditioning is on.



Floor temperature can be maintained in two ways. Air temperature can be ignored and the thermostat will maintain Floor Temperature Only. Or, air temperature can be considered and the thermostat will maintain Floor and Air Temperatures together.

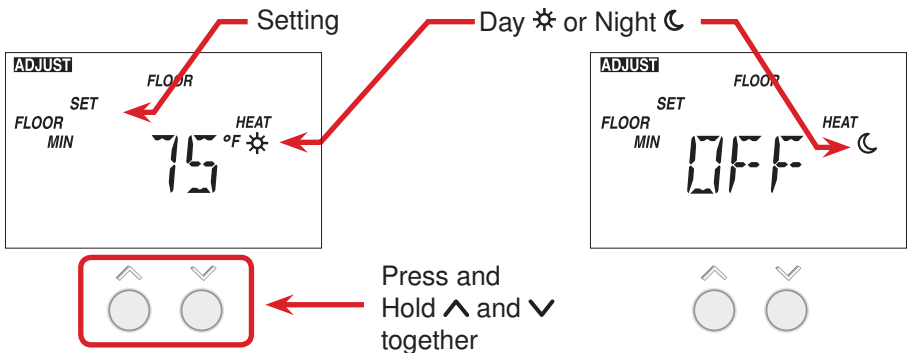
Floor Temperature Only

If the air sensor has been disabled, the thermostat will only maintain floor temperature and ignore air temperature. In this mode, the desired floor temperature can be adjusted as described in the “Temperature Adjustment” section.

Floor and Air Temperature

If the air sensor is turned on and there is a floor sensor connected, the thermostat will maintain your desired air temperature as well as a minimum floor temperature. However, the floor minimum temperature will override the air temperature, and if set too high, may overheat the room. The FLOOR MINIMUM temperature is adjusted through the Adjust Menu as follows:

Step 1:	Press and hold the ^ and v buttons to enter the Adjust Menu, and wait until the FLOOR MIN setting is shown as well as the desired day  or night  symbol (a new screen will appear every 2 seconds).
Step 2:	Press the ^ or v button to adjust the temperature setting.
Step 3:	Release all buttons and wait for the display to return to normal operation. The adjusted settings will be saved in memory.



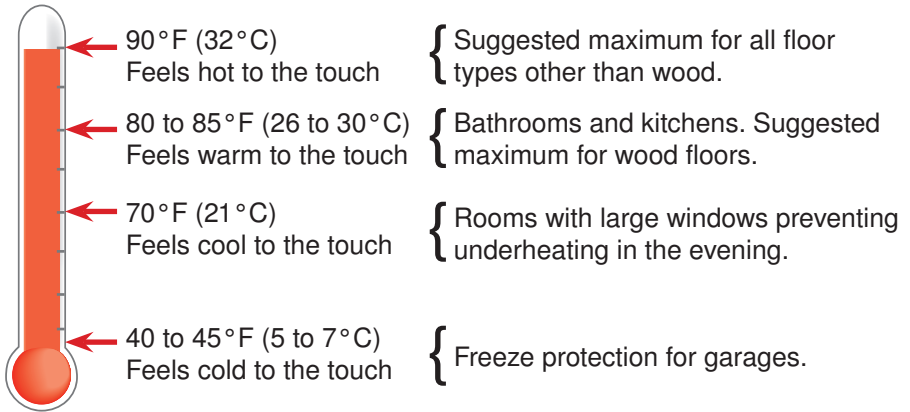
Floor Temperature Settings

Setting a floor temperature is a way of enhancing the comfort of your living space. Radiant floors heat the air by raising the floor temperature. During milder times of the year when the air temperature is warm enough without the need for heating, floors can cool off. A floor minimum setting can ensure that the floors stay warm during these periods, or even in the summer when the air conditioning is on.

Sun shining into a room can keep it warm without the need for heat. This can allow the floors to cool off. And when the sun goes down, it can sometimes take a long time for the floors to get warm again. This may cause the room to cool off too much in the early evening. A floor minimum setting can help with this condition.

The following are some typical floor temperature settings that have been used with tekmar thermostats.

NOTE: Setting a floor temperature that is too high can damage floors or make the room uncomfortably warm. If a FLOOR MIN is set, the thermostat will maintain the floor at this temperature regardless of the air temperature. And the air temperature may exceed that to which it is set.



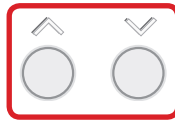
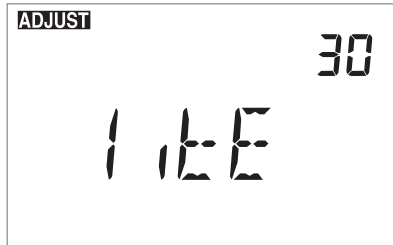
Wood Floors

Rapidly changing or excessively high temperatures can cause damage to wood flooring. Ask your heating professional about setting the floor maximum if your flooring is a type that can be damaged by heat.

Changing the Backlight

This thermostat has an LED backlight that can be configured as follows:

Off	Permanently Off.
30	Temporary on for 30 seconds (when a button is pressed)
On	Permanently On
On + ☼	On during ☼ and off during ☾

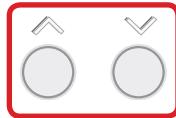
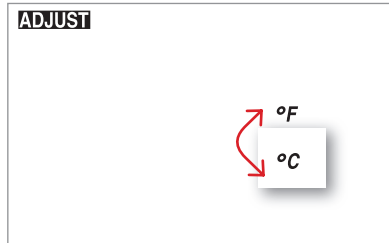


Press and
Hold ^ and v
together.

Step 1:	Press and hold the ^ and v buttons to enter the Adjust Menu, and wait until this screen appears (a new screen will appear every 2 seconds).
Step 2:	Press the ^ or v button to adjust the backlight operation.
Step 3:	Release all buttons and wait for the display to return to normal operation. The adjusted setting will be saved in memory.

Changing the Units (°F or °C)

This thermostat can display temperatures in °F or °C.

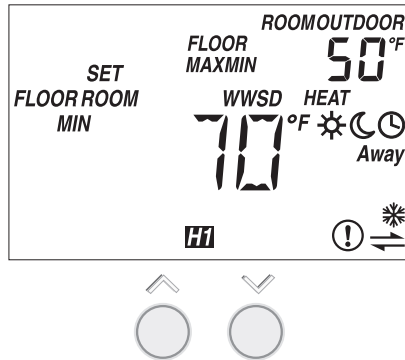


Press and Hold ^ and v together.

Step 1:	Press and hold the ^ and v buttons to enter the Adjust Menu, and wait until this screen appears (a new screen will appear every 2 seconds).
Step 2:	Press the ^ or v button to adjust the units.
Step 3:	Release all buttons and wait for the display to return to normal operation. The adjusted setting will be saved in memory.




Display Symbols

In addition to the features described in this manual, there may be others operating in the background. Among others, this thermostat will display symbols on its screen in order to indicate what mode it is in, what temperature it is operating at, or what equipment it is trying to turn on. This section describes each of those symbols.





Schedule Symbols

These symbols appear when a Schedule Master or User Switch is connected to the system. Those devices will tell this thermostat what temperature setting to operate at (day ☀, night 🌙, or **Away**). Refer to the “Day ☀ and Night 🌙 Temperatures” section for more information.

	A Schedule Master is present in the system and this thermostat is following that Master's programmable schedule.
	Operating at the Day temperature. If there is no Schedule Master or User Switch in the system, the thermostat will always be in this mode.
	Operating at the Night temperature. A setback enabling accessory or Schedule Master thermostat has enabled setback.
Away	Operating at the Away temperature. If flashing, the temperature cannot be adjusted by pressing the up or down arrows. Consult the Installation and Operation Manual for this product for more information on this feature.
WWSW	If flashing, the system is in Warm Weather Shut Down. The outdoor temperature is above the WWSW setting. No heating will take place while in WWSW. However, if a floor sensor is attached and a minimum floor temperature is set, it will be maintained.



Equipment Operating Symbols

These symbols indicate the current status of the system.







	Heating is turned on.
	The thermostat is part of a Cooling Group (a group of heating zones within a commonly ducted air-conditioning system) and the air-conditioning within that group is on. This thermostat will be locked out of heating when this symbol is displayed, which will save energy.

Communication Symbols

These symbols appear when this thermostat is part of a network and/or when there is something wrong in the system.

	The thermostat is part of a network and is communicating with other devices in the network.
	There is something wrong with the thermostat or the tekmarNet® system. This usually occurs if a control component has failed or is set up incorrectly. Contact your installing contractor for more information or consult the Installation and Operation Manual for this product.

Frequently Asked Questions

Symptom	Look for...	Corrective Action
No heat or not enough heat and pressing  button does not increase temperature	H1 Symbol	H1 symbol indicates heat is on. If the H1 symbol is displayed and you still have no heat, you may have an issue with your heating appliance. Consult your heating professional.
	Flashing WWSD	Increase WWSD setting on tekmarNet® reset control.
	Flashing Away	Press a user switch button other than Away (typically  or ) or go to your Scenes page on your gateway and change the scene to Occ or Unocc
	Flashing MAX	The thermostat has a maximum floor or air temperature set that is preventing the heating system from providing a higher temperature. Call your installer or refer to the Installation and Operation Manual for information on how to adjust maximum room and floor temperature settings.
Heat on before scheduled time	 	Optimum start “learns” the heat up and cool off rate of the room and starts the heating or cooling early so that the room is comfortable at the scheduled time.
Pressing  button does not decrease temperature	Flashing MIN	There may be a minimum room or floor temperature set. Consult your heating professional.

More Information

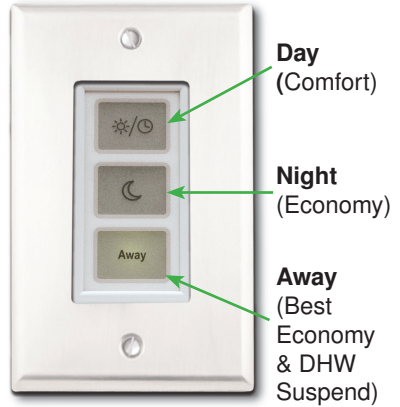
This User Brochure contains standard information on how to make adjustments to an installed product. More detailed information can be found in this product's Installation and Operation Manual (D528) at www.tekmarcontrols.com

Save Even More Energy - *the Easy Way*

Great Accessories for Your tekmarNet® System

User Switch 479

With the touch of one button, every part of your home can switch between Day, Night & Away temperature settings. While Away on vacation, domestic water heating can be suspended to save even more.



Timer 033

Let the system automatically switch between Day and Night temperatures to match your schedule. The Timer 033 can manage setback for all of the thermostats in your system from a central location.

Ask your installer about adding a tekmarNet® User Switch or Timer to add more energy saving convenience to your system.



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