

**Congratulations**  
on the purchase of  
your tekmar programmable  
thermostat with communication.  
This thermostat combines  
easy-to-use programming with  
advanced features to increase  
both comfort and energy  
efficiency.

Your tekmar thermostat allows  
you to:

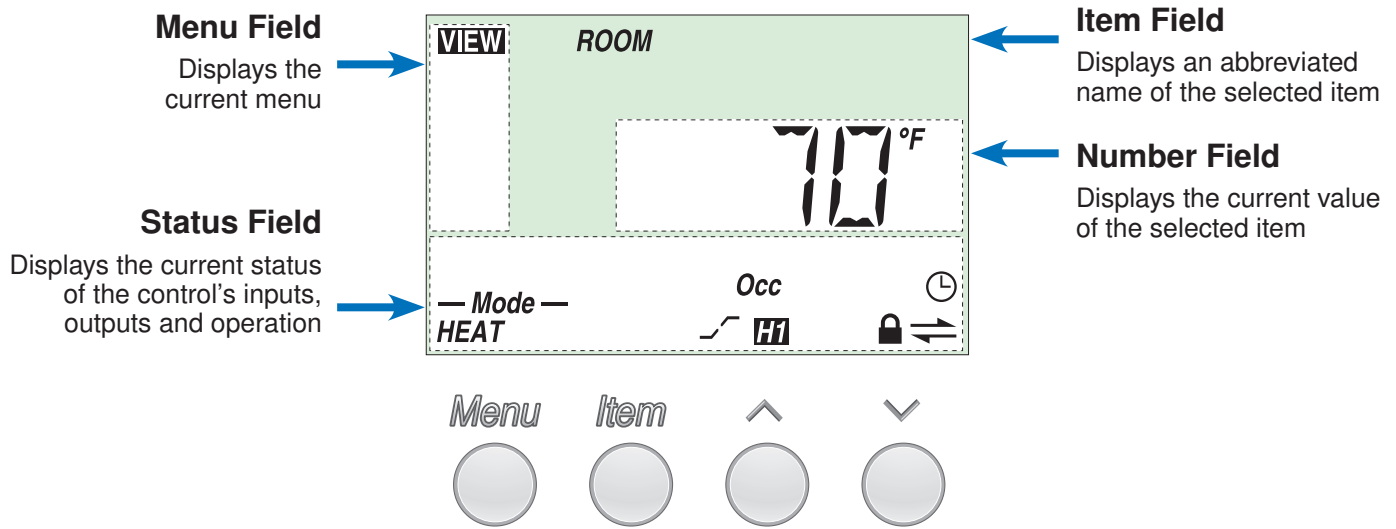
- View the outdoor temperature on all of your tekmar thermostats.
- Easily set up custom “Scenes” to match your home and lifestyle.
- Easily override your tekmar thermostats if you are planning an extended absence.

## Table of Contents

Display .....	2
Symbols Description.....	2
User Interface .....	3
Viewing Current Temperatures .....	4
Viewing the Room Set Temperature .....	4
Adjusting the Room Set Temperature (No Schd) .....	4
Adjusting the Room Set Temperature (Schd) .....	5
Temporary Room Set Adjustment (Schd) .....	5
Choosing the Mode of Operation.....	5
Setting the Floor Warming Temperatures .....	6
Selecting a Scene.....	6
Selecting a Schedule.....	7
Units of Temperature .....	7
Backlight .....	7
Cleaning the Thermostat .....	7
Error Messages .....	7
Warranty .....	8



## Display



## Symbols Description

	<b>MODE OF OPERATION</b> Displays whether in heating or cooling mode.		<b>OPTIMUM START / STOP</b> Indicates that Optimum Start or Optimum Stop is active.
	<b>FIRST STAGE OF HEAT</b> Indicates when the first stage of heat is operating.		<b>WARNING</b> Indicates an error is present.
	<b>tN4 COMMUNICATION</b> Indicates when a communication network is detected.		<b>TEMPORARY HOLD</b> Indicates that the temperature has been temporarily adjusted from the scheduled event temperature.
	<b>LOCK</b> Indicates that the access levels are locked. Also indicates when an item is visible but not adjustable.		<b>SCHEDULED EVENT</b> Indicates the current scheduled event.

## User Interface

The control uses a Liquid Crystal Display (LCD) as the method of supplying information on the operation of the thermostat.

### Access Levels

This thermostat has five access levels:

- SEC (Secure)
- LTD (Limited)
- USER (User)
- INST (Installer)
- ADV (Advanced).

This brochure only covers the features available in the SEC, LTD and USER levels. Only qualified service people should adjust the INST and ADV access levels.

### Menu

All of the items displayed by the thermostat are organized into five menus:

- View
- Adjust
- Scene
- Schedule
- Miscellaneous

These menus are listed in the Menu Field on the top left hand side of the display.

Use the Menu button to advance to the next menu.

### Item

Each menu has several items. The abbreviated name of the selected item will be displayed in the item field of the display. To view the next available item, press and release the Item button.

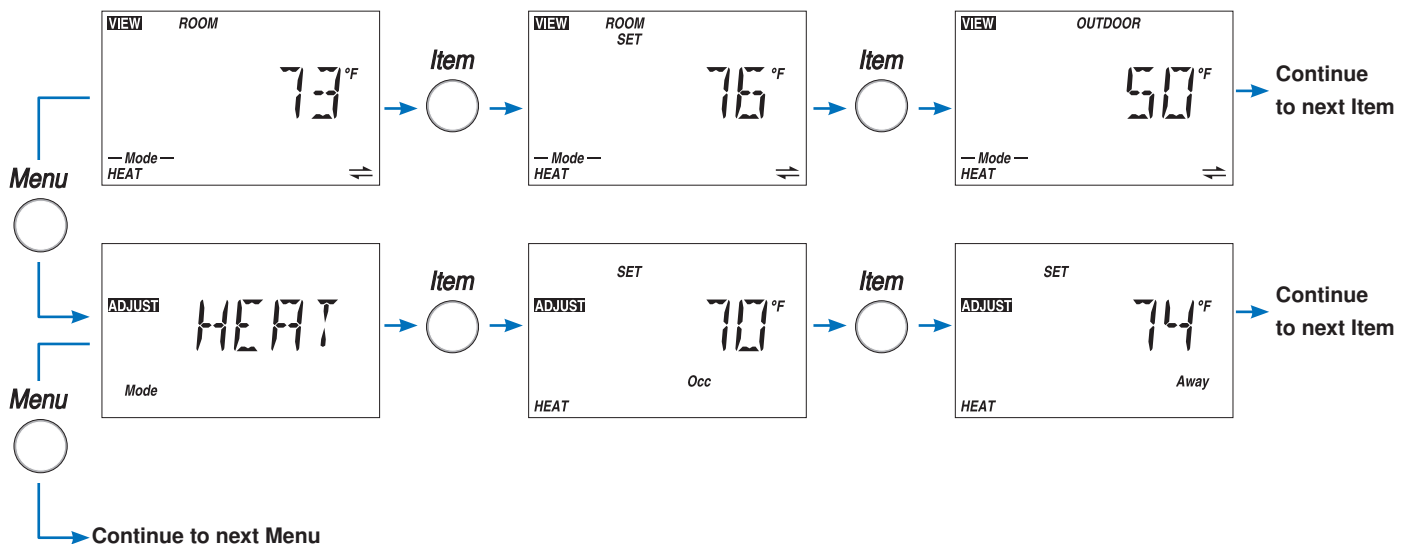
### Adjustment

To make an adjustment to a setting in the thermostat:

1. Use the Menu button to select the appropriate menu.
2. Use the Item button to select the desired item.
3. Use the Up or Down button to adjust the setting.

### Default Item

When you display an item in the View menu for more than 5 seconds it becomes the default item. After you navigate other menus, the display reverts back to the default item after 60 seconds of button inactivity.

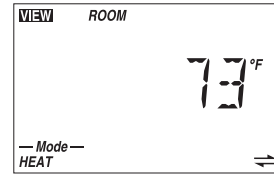


## Viewing Current Temperatures

Use the View menu to view the current temperatures being sensed by the thermostat. To view the available temperatures, use the Menu button to go to the View menu. Use the Item button to view the temperatures.

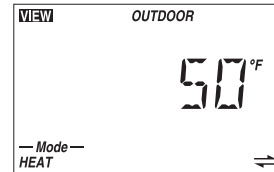
### Room Temperature

This is the current air temperature of the room being controlled.



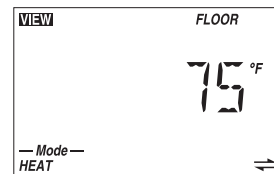
### Outdoor Temperature

If an outdoor sensor is connected, this is the current outdoor air temperature.



### Floor Temperature

If a floor sensor is connected to the thermostat, this is the current floor temperature.

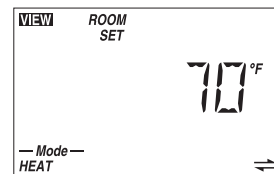


## Viewing the Room Set Temperature

The Room Set temperature is the temperature that the thermostat is currently set to maintain.

To view the Room Set temperature:

1. Use the Menu button to select the View menu.
2. Use the Item button to select Room Set.

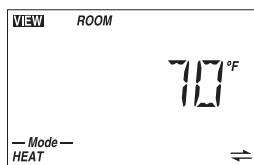


## Adjusting the Room Set Temperature (No Schedule)

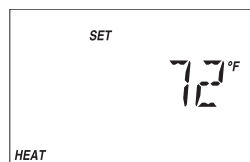
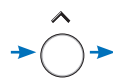
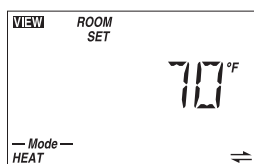
To adjust the Room Set temperature when there is no schedule in use:

1. Make sure you are in the VIEW menu. If not, press the Menu button until VIEW displays in the top left corner.
2. Press the Item button to display the 'Room' or 'Room Set' item.

3. Press the Up or Down button to enter the 'Set Heat' mode. Continue pressing the Up or Down button until the desired temperature is displayed
4. Ten seconds after the adjustment has been made, the display will return to the default item.

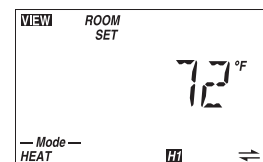


OR



Press Up or Down Button to adjust the heating temperature.

Wait 10 seconds



## Adjusting the Room Set Temperature (Schedule)

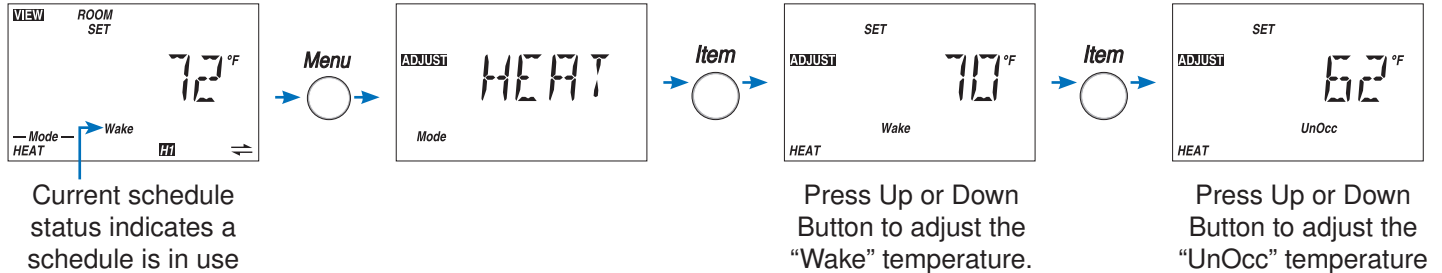
If your thermostat is using a schedule, the current event of Wake, UnOcc, Occ, Sleep or Away displays on the screen.

To change the temperature for a schedule event:

1. Use the Menu button to select the Adjust menu.

2. Use the Item button to select the Set Heat item for the event you would like to change (Wake, UnOcc, Occ, Sleep, or Away)

3. Use the Up or Down buttons to change the set temperature for the event.



## Temporary Room Set Adjustment (Schedule Only)

If your thermostat is using a schedule and you would like to temporarily change the current heating temperature:

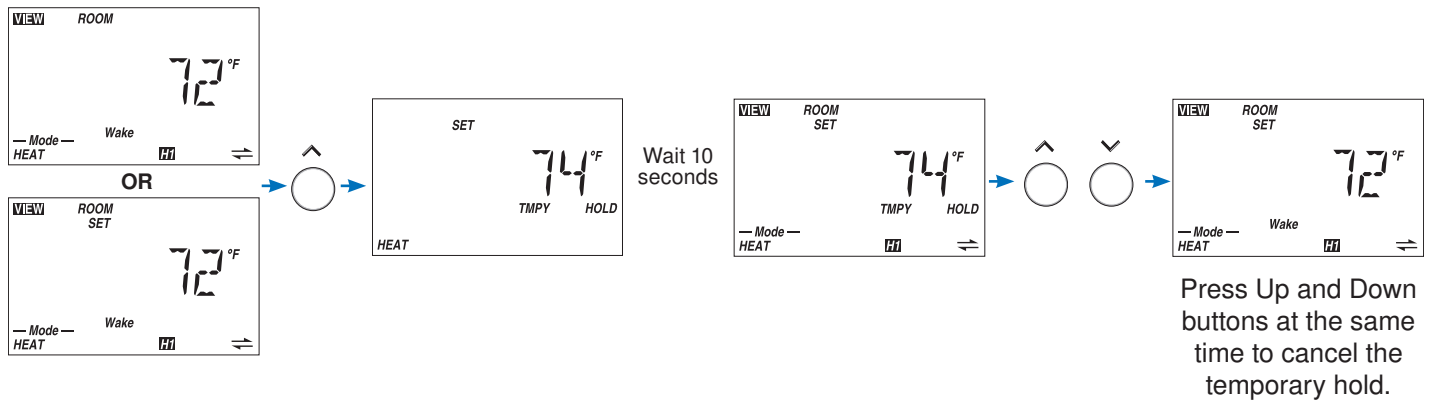
1. Make sure you are in the View menu. If not, press the Menu button until VIEW displays in the top left corner.

2. Press the Item button to select either the 'Room' or 'Room Set' item.

3. Press the Up or Down button to enter the 'Set Heat' mode. The words 'TMPY HOLD' will appear indicating that you are only making a temporary change. Continue pressing the Up or Down button to adjust the desired temperature.

4. Ten seconds after the adjustment has been made, the display will return to the default item. The words 'TMPY HOLD' will remain on the screen for the 3 hour duration of the temporary change.

5. To cancel the temporary hold before it expires, press and hold the Up and Down buttons at the same time.



## Choosing the Mode of Operation

The thermostat has two modes of operation:

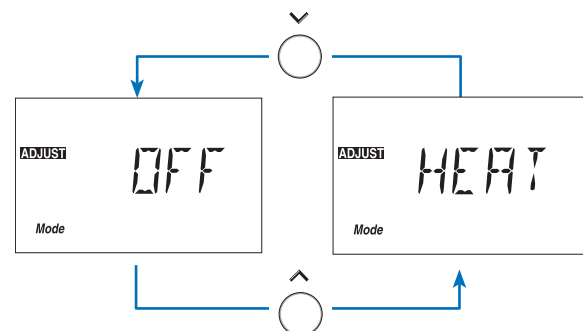
- Heat: Provides heating only.
- Off: Does not provide heating.

**To choose the Mode of Operation:**

1. Use the Menu button to select the Adjust menu.

2. Use the Item button to select the Mode item.

3. Use the Up or Down button to select either Off or Heat.



## Setting the Floor Warming Temperatures

If a floor sensor is installed, you can set the minimum floor temperature.

**Caution:** Setting a high floor minimum temperature can result in overheating the room.

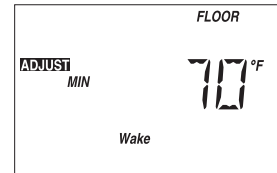
### To set the floor minimum temperature:

1. Use the Menu button to select the Adjust menu.
2. Use the Item button to select FLOOR MIN.
3. Use the Up or Down button to adjust the temperature.

**Note:** If your thermostat is using the schedule feature, you will have to set a FLOOR MIN temperature for each period.

There are up to four periods:

- Wake
- Occ (Occupied)
- Unocc (Unoccupied)
- Sleep



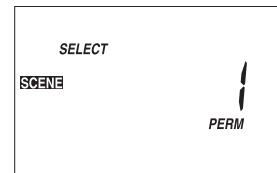
## Selecting a Scene

Scenes is a feature that your installer selects when he sets up each thermostat in your system.

Please refer to the Job Record J541 for a record of how your installer made these settings

Scenes allow you to change the temperature of all the thermostats that use the Scene feature from a single thermostat.

Several of the Scenes are preset from the factory. However, your installer can customize several of the scenes based on your needs. Refer to the Scene table below for a description of each scene.



Scene	Description	Thermostat Operation
1	Permanent 1	Scheduled event, Wake, Unoccupied, Occupied, Sleep, Away
2	Permanent Away 2	Away DHW demands are ignored (applies to reset modules) Setpoint demands operate (applies to reset modules)
3	Permanent Unoccupied 3	Unoccupied
4	Permanent 4	Scheduled event, Wake, Unoccupied, Occupied, Sleep, Away
5	Permanent 5	Scheduled event, Wake, Unoccupied, Occupied, Sleep, Away
6	Temporary Occupied 6	Occupied for 3 hours
7	Temporary 7	Scheduled event, Wake, Unoccupied, Occupied, Sleep, Away for 4 hours
8	Temporary 8	Scheduled event, Wake, Unoccupied, Occupied, Sleep, Away for 8 hours

### To select a scene:

1. Use the Menu button to select the Scene menu.
2. Use the Item button to select the Select item.
3. Use the Up or Down button to select the desired scene.
  - Default Scene: The default scene is Permanent 1. In a typical installation, the thermostat follows the schedule.
  - Factory set scene: When you select a factory set scene (2, 3, and 6), all of the thermostats using the scene feature use the temperature specified by the scene.
  - Custom scenes: When you select a custom scene, your installer will have preset each thermostat using the scene feature to either follow its regular schedule, or go to the set wake, occupied, unoccupied, sleep or away temperature.

### Example:

A house is normally in scene Permanent 1. There is a master bedroom that operates on a schedule and there is a guest bedroom that is normally set to Unoccupied. When a guest arrives, the scene is to change to Permanent 4. Scene 4 changes the guest room to operate on the setback schedule.

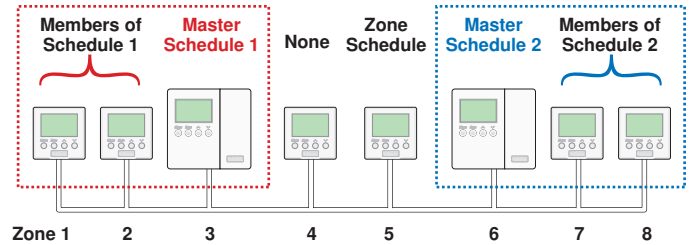
Location	Scene	Temperature
Master Bedroom	1	Schedule
	4	Schedule
Guest Bedroom	1	UnOccupied
	4	Schedule

## Selecting a Schedule

During installation, your installer will have selected a schedule for your thermostat.

To view the schedule your installer has selected:

1. Use the Menu button to select the Schedule Menu
2. Use the Item button to select the Heat Schd. You will see one of the following:
  - None: This thermostat is not using a schedule and operates at a single temperature.
  - MBR1 to MBR4: This thermostat is a member of a master schedule that has been set on a separate thermostat. If the master schedule is changed, it affects this thermostat.



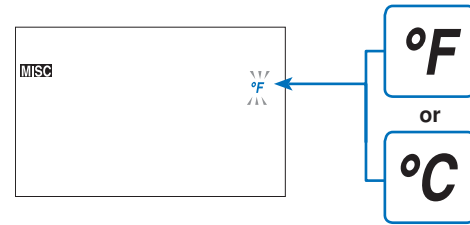
Schedule	Description
None	No schedule is used.
MBR1, MBR2, MBR3, MBR4	This thermostat is a system schedule member. The number indicates which of the four system schedules the thermostat is following.

## Units of Temperature

You can display temperatures in either Fahrenheit (°F) or in Celsius (°C).

**To change the units of temperature:**

1. Use the Menu button to select the Misc menu.
2. Use the Item button until the units flash.
3. Use the Up or Down button to select Fahrenheit (°F) or Celsius (°C):



## Backlight

The thermostat's display has a backlight. By default the backlight is temporarily On. You can also set the backlight to be either permanently On or permanently Off.

**To change the backlight setting:**

1. Use the Menu button to select the Misc menu.
2. Use the Item button to select Backlite.

3. Use the Up or Down button to select a setting:

- ON: Backlight stays on.
- TMPY (Temporary): Backlight stays on for 30 seconds.
- OFF: Backlight is off.

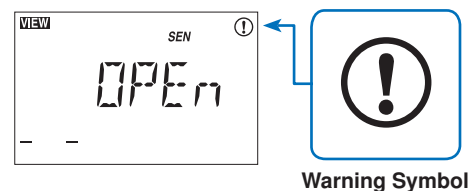
## Cleaning the Thermostat

Clean the thermostat's exterior using a damp cloth. Moisten the cloth with water and wring out prior to wiping the thermostat. Do not use solvents or cleaning solutions.

## Error Messages

When the thermostat encounters a problem, a Warning Symbol appears and a description of the error message is displayed. To troubleshoot how to correct the error, please refer to the Data Brochure or contact a qualified installer.

An electronic version of the Data Brochure D 541 is available on the tekmar website: [www.tekmarcontrols.com](http://www.tekmarcontrols.com).



## Limited Warranty and Product Return Procedure

**Limited Warranty** *The liability of tekmar under this warranty is limited. The Purchaser, by taking receipt of any tekmar product ("Product"), acknowledges the terms of the Limited Warranty in effect at the time of such Product sale and acknowledges that it has read and understands same.*

The tekmar Limited Warranty to the Purchaser on the Products sold hereunder is a manufacturer's pass-through warranty which the Purchaser is authorized to pass through to its customers. Under the Limited Warranty, each tekmar Product is warranted against defects in workmanship and materials if the Product is installed and used in compliance with tekmar's instructions, ordinary wear and tear excepted. The pass-through warranty period is for a period of twenty-four (24) months from the production date if the Product is not installed during that period, or twelve (12) months from the documented date of installation if installed within twenty-four (24) months from the production date.

The liability of tekmar under the Limited Warranty shall be limited to, at tekmar's sole discretion: the cost of parts and labor provided by tekmar to repair defects in materials and / or workmanship of the defective product; or to the exchange of the defective product for a warranty replacement product; or to the granting of credit limited to the original cost of the defective product, and such repair, exchange or credit shall be the sole remedy available from tekmar, and, without limiting the foregoing in any way, tekmar is not responsible, in contract, tort or strict product liability, for any other losses, costs, expenses, inconveniences, or damages, whether direct, indirect, special, secondary, incidental or consequential, arising from ownership or use of the product, or from defects in workmanship or materials, including any liability for fundamental breach of contract.

The pass-through Limited Warranty applies only to those defective Products returned to tekmar during the warranty period. This Limited Warranty does not cover the cost of the parts or labor to remove or transport the defective Product, or to reinstall the repaired or replacement Product, all such costs and expenses being subject to Purchaser's agreement and warranty with its customers.

Any representations or warranties about the Products made by Purchaser to its customers which are different from or in excess of the tekmar Limited Warranty are the Purchaser's sole responsibility and obligation. Purchaser shall indemnify and hold tekmar harmless from and against any and all claims, liabilities and damages of any kind or nature which arise out of or are related to any such representations or warranties by Purchaser to its customers.

The pass-through Limited Warranty does not apply if the returned Product has been damaged by negligence by persons other than tekmar, accident, fire, Act of God, abuse or misuse; or has been damaged by modifications, alterations or attachments made subsequent to purchase which have not been authorized by tekmar; or if the Product was not installed in compliance with tekmar's instructions and / or the local codes and ordinances; or if due to defective installation of the Product; or if the Product was not used in compliance with tekmar's instructions.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, WHICH THE GOVERNING LAW ALLOWS PARTIES TO CONTRACTUALLY EXCLUDE, INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, DURABILITY OR DESCRIPTION OF THE PRODUCT, ITS NON-INFRINGEMENT OF ANY RELEVANT PATENTS OR TRADEMARKS, AND ITS COMPLIANCE WITH OR NON-VIOLATION OF ANY APPLICABLE ENVIRONMENTAL, HEALTH OR SAFETY LEGISLATION; THE TERM OF ANY OTHER WARRANTY NOT HEREBY CONTRACTUALLY EXCLUDED IS LIMITED SUCH THAT IT SHALL NOT EXTEND BEYOND TWENTY-FOUR (24) MONTHS FROM THE PRODUCTION DATE, TO THE EXTENT THAT SUCH LIMITATION IS ALLOWED BY THE GOVERNING LAW.

**Product Warranty Return Procedure** All Products that are believed to have defects in workmanship or materials must be returned, together with a written description of the defect, to the tekmar Representative assigned to the territory in which such Product is located. If tekmar receives an inquiry from someone other than a tekmar Representative, including an inquiry from Purchaser (if not a tekmar Representative) or Purchaser's customers, regarding a potential warranty claim, tekmar's sole obligation shall be to provide the address and other contact information regarding the appropriate Representative.



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