
simple™

WI-FI THERMOSTAT
S100

User Guide

Introduction

The Simple thermostat supports supports 2 heating stages and 2 cooling stages for conventional systems, and 2 heating/cooling stages for heat pumps, with or without emergency heat.

A common wire (C-wire) or other 24VAC power source is required.*

WARNING: Line voltage and millivolt systems are not supported.

To sign up for an account and begin your installation, visit:

[**home.thesimple.com/install**](https://home.thesimple.com/install)

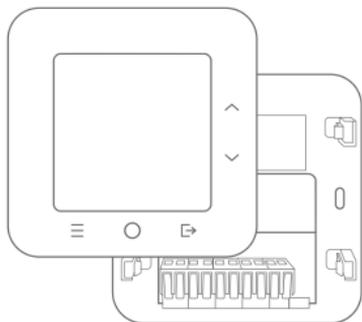
To adjust settings remotely, or to create your personalized schedule, visit home.thesimple.com, or install the **Simple thermostat** mobile app for iOS or Android.



*If you do not have a C-wire, or are not sure, visit www.thesimple.com/compatibility

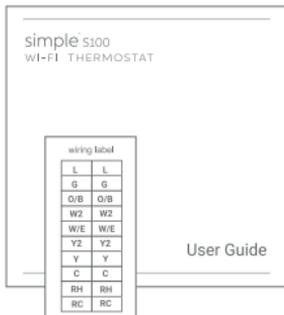
In the Box

Thermostat and Wall Plate

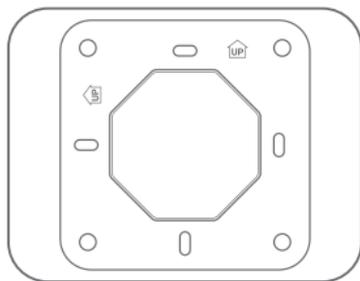


The wall plate comes snapped into the back of the thermostat.

Manual and Wiring Labels

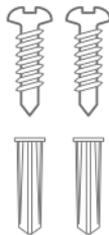


Trim Plate



The optional trim plate can cover unfinished areas under the old thermostat. It can be used horizontally or vertically.

Screws and Wall Anchors

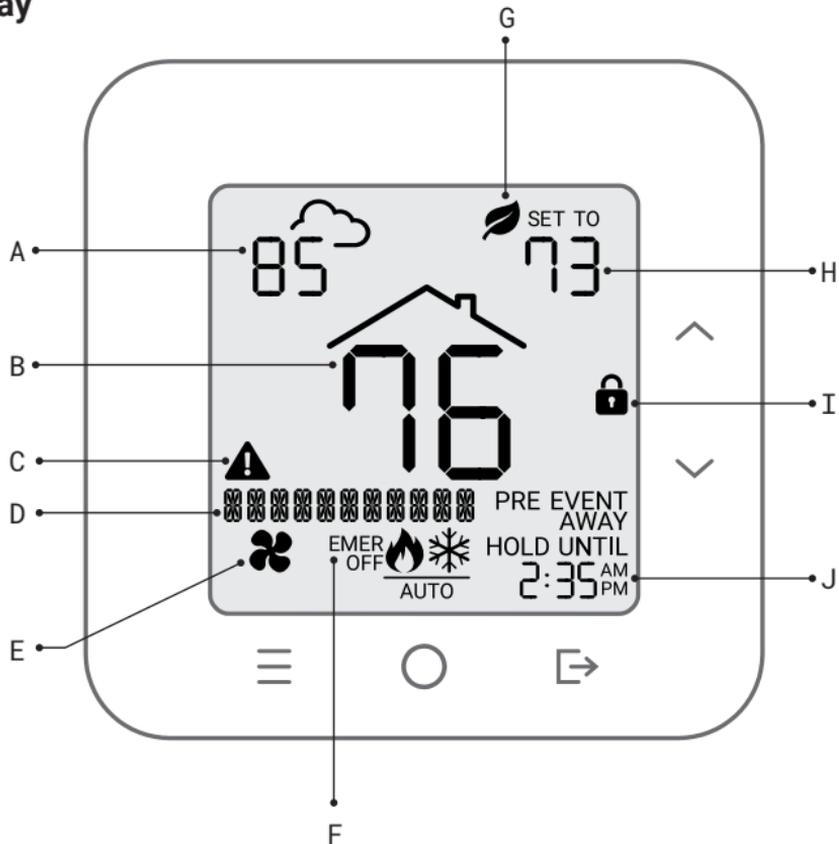


Wiring Guide

Connect your system's wiring using the table below.

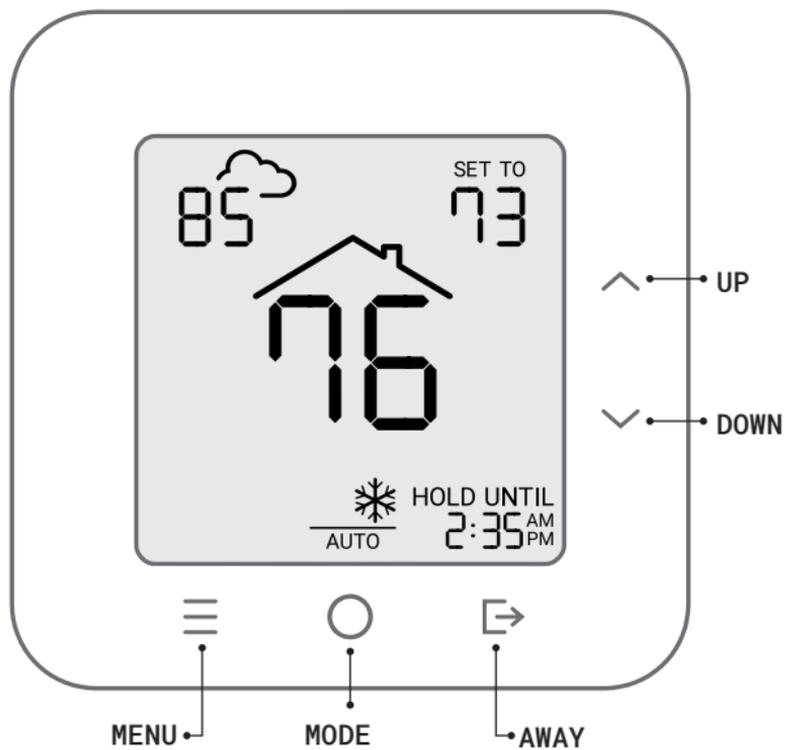
Terminal	Function
RC	24VAC for cooling.
RH	24VAC for heating. If there is only one R wire (R, RH, RC) then connect it to RH. May be labeled V or VR for Lennox.
C	Common wire. May be labeled X for Rheem, Ruud, or Lennox; B for Trane, York.
Y	1st stage compressor, A/C or heat pump. May be labeled M for Lennox.
Y2	2nd stage compressor, A/C or heat pump.
W/E	1st stage heating, or heat pump emergency heat. Some heat pumps may designate emergency heat as E or X2, or auxiliary heat as W1 or W2. May be labeled Y for Lennox.
W2	2nd stage heating. Not used for heat pumps.
O/B	Heat pump changeover valve.

Display



A		Outside temperature, shown when your account is configured with a ZIP code.
B		Indoor temperature.
C		Error/warning indicator.
D		The message line provides information to the user and displays the menu options.
E		Fan indicator, flashes when running.
F		Mode indicator, the heat or cool icon flashes when running. Automatic mode switching occurs when AUTO is shown.
G		Efficiency indicator when energy saving settings are applied.
H		Temperature setting for the current mode.
I		Lock indicator when front panel is locked.
J		Status display for HOLD , AWAY duration, and energy management events.

Buttons



	Function	
	During Thermostat Operation	While in Menu
	UP increases the temperature setting.	Previous menu item.
	DOWN decreases the temperature setting.	Next menu item.
	MENU enters and exits the Settings menu.	Return to previous menu.
	MODE changes the system mode, and cancels HOLD , AWAY , Utility EVENT , or Efficiency adjustments.	Selects current item or enters sub-menu.
	AWAY enters timed energy saving settings. Press again to exit.	Return to previous menu.

Changing Modes



You can select whether **HEAT** or **COOL** is provided using the circular **MODE** button. The **MODE** button cycles sequentially through the available modes.

Only the modes supported by your system are shown. For example, a furnace-only installation alternates between **OFF** and **HEAT** when the **MODE** button is pressed. A conventional system with both heating and cooling will cycle through **OFF**, **HEAT**, **COOL**, and **AUTO** each time **MODE** is pressed.

If your system supports both heating and cooling, **AUTO** mode is a convenient setting to automatically switch between **HEAT** and **COOL** mode.

Thermostat Modes

OFF	When OFF , the system is turned off. No heating or cooling occurs.
	HEAT icon indicates system is in heat-only mode, and flashes when the heating system is running.
	COOL icon indicates system is in cool-only mode, and flashes when the cooling system is running.
	AUTO mode switches between heat and cool depending on the indoor temperature. A flashing HEAT or COOL icon indicates which mode is running.
EMER 	EMERGENCY HEAT is only applicable for heat pumps. The mode icon flashes when the system is running.

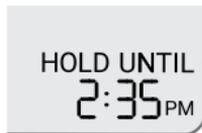
Adjusting the Temperature



To the right of the display, the **UP** and **DOWN** buttons adjust your desired temperature. Each button changes the temperature by 1 degree.* Holding the **UP** or **DOWN** button automatically increases or decreases the temperature setting.

Your thermostat has a schedule that changes the temperature according to day and time. When making a temperature adjustment, this setting is maintained until the next schedule interval.

If you manually adjust the temperature on your thermostat, the display shows **HOLD UNTIL** and the time of the next interval when the schedule resumes. If the temperature is adjusted to match the schedule, the **HOLD UNTIL** display is cleared.



Your schedule can be enabled or disabled in the menu.** When the schedule is disabled, your temperature adjustments are held indefinitely, and the display shows **HOLD**.



* When the display is showing Celsius, each adjustment is by 0.5°C.

** If you've received your thermostat from a utility or energy company, you may be required to keep the schedule enabled.

Returning to Schedule



When a schedule is running, a manual adjustment can be cancelled by pressing the **MODE** button. This returns you to the temperature setting of your schedule and the **HOLD UNTIL** indicator is cleared.

Setting Away



You can temporarily choose an energy-saving setting using the **AWAY** button, located in the lower-right corner of the display. Pressing this button cycles through the following choices:

- **AWAY 2 HRS**
- **AWAY 6 HRS**
- **AWAY ON**
- **AWAY OFF**

You may adjust the temperature for the **AWAY** period using the **UP** or **DOWN** buttons while the away duration is flashing.

If no other button is pressed, after 5 seconds the current **AWAY** setting is applied. Pressing the **MODE** button when **AWAY** is flashing accepts the current settings and starts **AWAY** immediately.

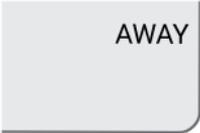
While any **AWAY** mode is active, manual temperature changes using **UP** or **DOWN** buttons are disabled. You must cancel **AWAY** before making further adjustments.

The **AWAY** temperature is held until the **AWAY** duration expires, and the end time is shown in the status display.



AWAY
UNTIL
2:35_{PM}

Selecting **AWAY ON** is a permanent away and the temperature is held until **AWAY** is cancelled. In this case, the **UNTIL** status is not shown.



AWAY

Canceling Away



When **AWAY** is in effect, it can be cancelled using either the **MODE** or **AWAY** buttons. Canceling **AWAY** returns you to the schedule temperature setting for the current day and time. If the schedule is not running, cancelling **AWAY** returns to the same temperature setting when **AWAY** was started.

Energy Management Events

Your account may be configured to participate in Energy Management Events. When an event is in progress, the lower-right display shows **PRE EVENT** or **EVENT** and the **UNTIL** end time for the event. A **PRE EVENT** may occur before an **EVENT** to help reduce your energy consumption during peak hours.



EVENT
UNTIL
2:35 PM

Manual changes to temperature using the **UP** or **DOWN** buttons are disabled during a **PRE EVENT** or **EVENT**. The event must be cancelled before adjustments can be made.

Cancelling an Event



To cancel an **EVENT** that is in progress, press the **MODE** button. If the **EVENT** is cancelled during the **PRE EVENT** phase, the subsequent **EVENT** phase will continue to be applied.

Energy Efficiency

Your account can be configured with an energy efficiency program that makes automated adjustments to your temperature settings.

When these changes are applied, the leaf indicator is shown along with the current temperature setting.



You can continue to make adjustments using the **UP** or **DOWN** buttons. However the Leaf indicator is turned off when you change to a less efficient temperature. The leaf indicator is also turned off when you enter **AWAY**.

For more information, please visit: www.thesimple.com/support/ee

Canceling Energy Efficiency



When your schedule is enabled, pressing the **MODE** button cancels the current energy efficiency settings and returns to the temperature setting of your schedule.

Menu Settings



The **MENU** button on the lower-left front panel opens the thermostat menu. The message line shows the current menu item, and the **UP** or **DOWN** buttons can be used to navigate. The **MODE** button selects the current menu or sub-menu item displayed.

Pressing **MENU** again exits the menu. After 20 seconds of inactivity, the menu automatically exits.

Main Menu

Menu Item	Choices	Description
FAN MODE	AUTO ON	Normally set to AUTO . When set to ON , the fan runs and the fan indicator flashes.
SCHEDULE	ON HOLD	Normally set to ON to enable schedule changes. When set to HOLD , temperature adjustments must be changed manually. The HOLD indicator is shown on the display.
>SETTINGS		Enter the SETTINGS menu to customize user preferences.
>NETWORK		Enter the NETWORK menu to join a Wi-Fi network and view network settings.
>INSTALL		Enter the INSTALL menu to view install code and register the thermostat.
>INFO		Enter the INFO menu to view thermostat date and time, and firmware versions.

Settings Menu

Menu Item	Choices	Description
BRIGHTNESS	LOW MEDIUM HIGH	Adjust the brightness level of the display.
BACKLIGHT	OFF ON	When ON , the display dims after 30 seconds of inactivity. Otherwise the display turns off after 30 seconds.
SOUND	OFF LOW MEDIUM HIGH	Adjust the volume level of sounds when buttons are pressed.
DEG DISPLAY	FAHRENHEIT CELSIUS	Set the units shown on the display. This does not change the units in the mobile app.
CLOCK	12 HR 24 HR	Set the clock to use 12-hour time with AM/PM, or a 24-hour time.

Network Menu

Menu Item	Choices	Description
WPS NOW	WPS ON	Press MODE to start Wi-Fi Protected Setup. Then press the WPS button on your router to automatically join the Wi-Fi network.
WIFI NOW	THERM-nnnn	<p>Press MODE to start the thermostat Wi-Fi Access Point. The network name is THERM-nnnn, where nnnn is a suffix assigned to your thermostat.</p> <p>Connect to THERM-nnnn, then launch a browser and visit: http://192.168.10.1</p> <p>Follow the instructions to select your Wi-Fi network and enter the network password.</p>
SSID		<p>The network name when configured for Wi-Fi. If not configured, then the network name is THERM-nnnn described above.</p> <p>If network name is more than 11 characters, press MODE to show next portion of the name.</p>

Network Menu

Menu Item	Choices	Description
IP ADDRESS		The IP address of your thermostat. If the address exceeds 11 characters, press MODE again to see more. When not connected, 0.0.0.0 is shown.
MAC		The MAC address of your thermostat as 16 characters (IPv6). Press MODE to show the next portion of the MAC.
SIGNAL		<p>The Wi-Fi signal strength in dB. -60 or more is usually a good connection.</p> <p>A signal strength of less than -65 may require improving your Wi-Fi network.</p>

Install Menu

Menu Item	Choices	Description
INSTALL NOW		Press MODE to show the 10-character Install Code. This code is required when registering for cloud services. The code is also printed on the back of the unit.

Info Menu

Menu Item	Choices	Description
DATETIME		The date and time of the thermostat. The date appears in the message line, and the time in the status display. This can be used to confirm time zone and DST settings.
FIRMWARE		The thermostat firmware versions. There are 4 firmware versions, and each press of MODE shows the next one.

Advanced Menu



The Advanced Menu is hidden from normal operation. Pressing **MENU** and **MODE** simultaneously for 5 seconds enters the advanced menu. After 20 seconds of inactivity, this menu exits automatically.

Advanced Menu

Menu Item	Choices	Description
LOCK	OFF ALL SET POINT	<p>Locks the front panel to prevent unauthorized changes. Settings can still be changed with the mobile app.</p> <p>LOCK ALL prevents all front panel changes, including changing mode.</p> <p>LOCK SET POINT allows changing mode and using AWAY, but the temperature settings cannot be changed.</p> <p>The lock indicator is shown when the thermostat is locked.</p>

Advanced Menu

Menu Item	Choices	Description
>HVAC INFO		Enters the HVAC menu to configure your system settings. When connected to Wi-Fi, the menu is called HVAC INFO , and the menu is read-only
RESET	CONFIRM	When MODE is pressed, the thermostat restarts. Existing settings are unchanged.

HVAC Menu

Menu Item	Choices	Description
HVAC TYPE	HEAT COOL HEAT ONLY COOL ONLY HT PUMP HT PUMP EMR	Type of system connected to this thermostat. This setting is read-only when Wi-Fi is configured.
CHANGEOVER	0 – COOL ON B – HEAT ON	Applies only to heat pumps. Determines whether heat or cool is active. If your heat pump is heating when it should be cooling, and vice-versa, please change this setting. This setting is read-only when Wi-Fi is configured.
FURNACE	GAS ELECTRIC	Applies only to forced air systems, including heat pump emergency heat. This setting is read-only when Wi-Fi is configured.

Error/Warning Messages

NO NETWORK	<p>The Wi-Fi connection is configured, but no connection exists.</p> <p>Please confirm that your internet connection is active, and your Wi-Fi password has not changed. In some cases, restarting your router may help. The thermostat reset button may also help to restart the network connection.</p>
HP FAULT	<p>A heat pump fault is reported via the L-wire. Contacting an HVAC technician is recommended.</p>
UPDATING CHECK IMAGE WRITE IMAGE	<p>The thermostat is being updated with a remote update. Do not remove power or unplug your thermostat.</p>

Reset to Factory Settings



A full reset to original settings can be performed using the Advanced Menu **RESET**.

Press and hold both the **MENU** and **MODE** buttons for 5 seconds to enter the Advanced Menu.

Press **DOWN** until **RESET** is shown.

Press **MODE** and **CONFIRM** will start flashing.

Press and hold **MODE** for 5 seconds when **CONFIRM** is flashing. All Wi-Fi and heating/cooling system configuration are cleared.

If you wish to perform a conventional reset, press the **MODE** button without holding it down.

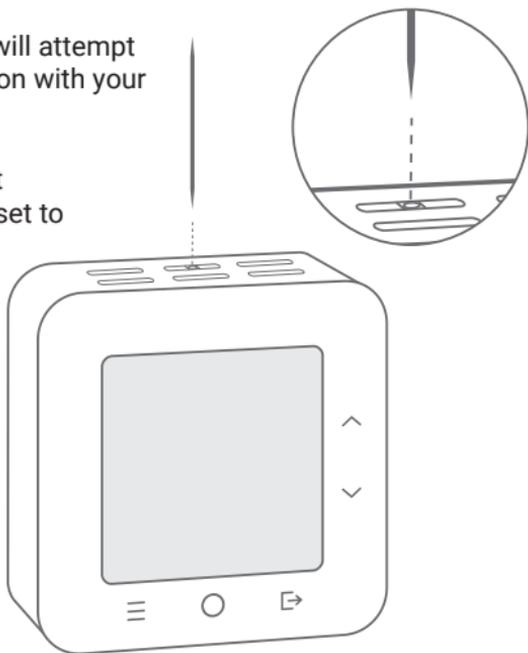
WARNING: After this step, your thermostat will **NOT** be connected to Wi-Fi, and may not be configured properly to operate your system.

Hardware Reset

The top of the thermostat has a pinhole reset button. This restarts the device, but does not clear your existing heating/cooling system configuration or your network connection.

When the thermostat restarts, it will attempt to re-establish the Wi-Fi connection with your router.

If you wish to clear all thermostat configuration, please perform Reset to Factory Settings.



Disconnected Configuration

This thermostat is intended to be connected to your Wi-Fi network. However, it is fully functional as a conventional thermostat when disconnected.

If you wish to use the thermostat as a disconnected device, the system heating and cooling configuration must be configured using the Advanced Menu before use.

If this thermostat was previously configured for another Wi-Fi network, you must first clear the old connection with a Factory Reset.

The default configuration for your thermostat is for conventional heating and cooling. If you have a heat pump or other configuration, do not use the **MODE** button until the thermostat has been configured.

Step 1: Factory Reset (if needed)



Press and hold both the **MENU** and **MODE** buttons for 5 seconds to enter the Advanced Menu.

Press **DOWN** until **RESET** is shown.

Press **MODE** and **CONFIRM** will start flashing.

Hold **MODE** for 5 seconds and release after the unit starts to count down to clear all settings.

Step 2: Enter System Configuration

Press and hold both the **MENU** and **MODE** buttons for 5 seconds to enter the Advanced Menu.

Press **DOWN** until **>HVAC INFO** is shown.

Press **MODE** to enter the HVAC configuration menu.

The following settings are available:

HVAC TYPE	HEAT COOL HEAT ONLY COOL ONLY HT PUMP HT PUMP EMR	Type of system connected to this thermostat. When connected to Wi-Fi, these settings are configured via the app.
CHANGEOVER	0 – COOL ON B – HEAT ON	Applies only to heat pumps. Determines whether heat or cool is active. Most heat pumps are O, but Rheem/Ruud typically use B. If your heat pump is heating when it should be cooling, and vice-versa, please change this setting.
FURNACE	GAS ELECTRIC	Applies only to forced air systems, including heat pump emergency heat.

Step 3: Set Time and Date

The time and date must be set manually for timed features to work properly. Daylight Savings Time changes must also be applied manually.

This is only necessary when not connected, because the time and date of the thermostat are set automatically over the Internet when connected to Wi-Fi.

Press **MENU** to enter the menu system.

Press **DOWN** until **>SETTINGS** is shown.

Press **MODE** to enter the Settings menu.

Press **DOWN** until **>SET TIME** is shown.

Press **MODE** to enter the **SET TIME** menu.

The following settings are available:

HOUR	nn	Set the hour of the time. If the 12-hour clock, then the choices are 1-12.
MINUTE	nn	Set the minute of the time, 00-59.
AM/PM	AM PM	This choice is only shown for a 12-hour clock.

Use **MENU** to exit from the **SET TIME** menu.

Press **DOWN** until **>SET DATE** is shown.

Press **MODE** to enter the **SET DATE** menu.

The following settings are available:

MONTH	JAN FEB MAR APR MAY JUN	JUL AUG SEP OCT NOV DEC	Set the current month.
DAY	nn		Set day, with range of 1 to last day of current month.
YEAR	nnnn		Set the year, with range of 2016 to 2100.

Disconnected Schedule

The thermostat has a built-in schedule that is used when disconnected. You can use the menu to turn off the schedule, or you can connect your thermostat to Wi-Fi and personalize your schedule.

Weekday (Mon-Fri)		
Interval	Heat Setpoint	Cool Setpoint
6 AM	71 F, 21.7 C	77 F, 25.0 C
8 AM	68 F, 20.0 C	79 F, 26.2 C
6 PM	70 F, 21.1 C	75 F, 23.9 C
10 PM	67 F, 19.5 C	76 F, 24.5 C
Weekend (Sat-Sun)		
Interval	Heat Setpoint	Cool Setpoint
7 AM	71 F, 21.7 C	77 F, 25.0 C
10 AM	68 F, 20.0 C	79 F, 26.2 C
6 PM	70 F, 21.1 C	75 F, 23.9 C
11 PM	67 F, 19.5 C	76 F, 24.5 C

FCC Statement

WARNING: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

