Suuwer S721

Suuwer S721 Non-Programmable Heat Pump Thermostat User Manual

Model: S721

1. Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of your Suuwer S721 Non-Programmable Heat Pump Thermostat. This thermostat is designed for residential use with heat pump systems up to 2 Heat and 1 Cool stages. Please read this manual thoroughly before installation and use to ensure proper function and safety.

2. Safety Information

WARNING: Always turn off power to the heating/cooling system at the main fuse or circuit breaker panel before installing or servicing the thermostat. Failure to do so could result in electrical shock or equipment damage.

- Installation should be performed by a qualified technician if you are unsure about electrical wiring.
- Do not use this thermostat with voltages exceeding 30VAC.
- Ensure all wiring connections are secure to prevent short circuits.
- Keep the thermostat away from direct sunlight, drafts, and heat sources for accurate temperature readings.

3. Package Contents

Verify that your package contains the following items:

- Suuwer S721 Heat Pump Thermostat
- Operation Manual (this document)
- Installation Manual
- Two screws and anchors for mounting
- Cable Labels

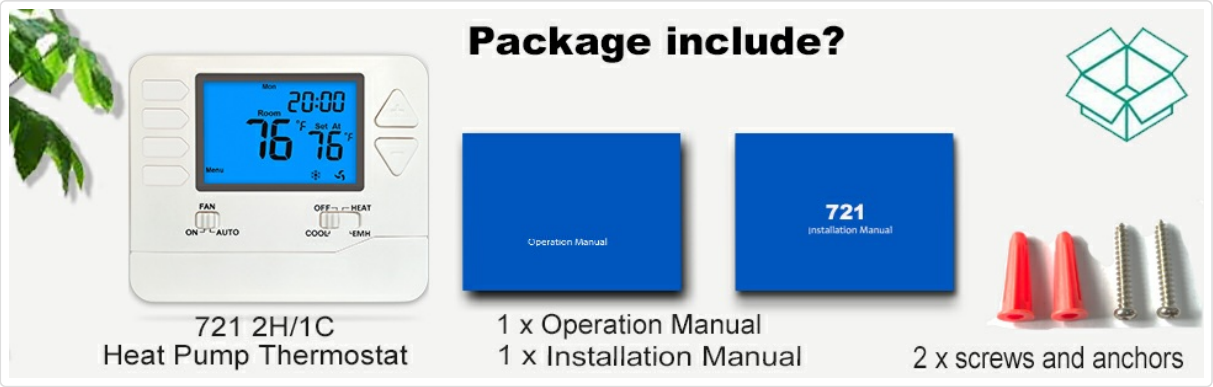


Image: Contents of the Suuwer S721 Thermostat package.

4. Product Overview

The Suuwer S721 thermostat features a clear digital display and intuitive controls for managing your home's climate.

Image: Front view of the Suuwer S721 Thermostat.

4.1. Features

- 4.5 sq. inch large LCD display with blue backlight.
- Displays room temperature, set temperature, and current time simultaneously.
- Fan switch with ON and AUTO functions.
- Separate B & O terminals for heat pump changeover.

- Separate heating and cooling swing (cycle rate) adjustment.
- Air filter change indicator (selectable on or off).
- Low battery indicator.
- Room temperature calibration adjustment.
- 5-minute compressor delay protection (selectable on or off).
- Display options: Fahrenheit or Celsius temperature, 12 or 24-hour clock.
- Easy access battery compartment.

4.2. Controls and Display

Image: Thermostat controls and display features.

- **LCD Display:** Shows current room temperature, set temperature, time, and system status.
- **Up/Down Arrows:** Adjust the set temperature.
- **Menu Button:** Access advanced settings.
- **Tech Set Button:** Used for technical configuration settings.
- **Set Time Button:** Adjust the current time.
- **FAN Switch (ON/AUTO):**
  - **ON:** Fan runs continuously.

- **AUTO:** Fan runs only when heating or cooling system is active.

- **SYSTEM Switch (COOL/OFF/HEAT/EMH):**
  - **COOL:** Thermostat controls cooling.
  - **OFF:** System is off.
  - **HEAT:** Thermostat controls heating (heat pump).
  - **EMH (Emergency Heat):** Activates auxiliary/emergency heat.

5. Compatibility

The Suuwer S721 thermostat is designed for specific HVAC systems. Please review the compatibility information carefully before installation.

5.1. Compatible Systems

- Heat Pump systems (with auxiliary or emergency heat).
- Heat Pump systems (without auxiliary heat).
- Most 24V conventional single-stage systems (e.g., conventional forced air, central gas, oil, or electric furnaces) up to 2 heat and 1 cool.

5.2. Incompatible Systems

- 110-240V electric heat systems (e.g., electric baseboard heat, line voltage, convectors, radiant-ceiling heat).
- Conventional multi-stage systems.
- Mini-split systems.
- 12V RV thermostats.

Image: Thermostat compatibility overview.

6. Setup and Installation

Careful installation is crucial for the proper functioning of your thermostat. If you are not comfortable with electrical wiring, consult a qualified HVAC technician.

6.1. Pre-Installation Checklist

1. **Turn off Power:** Locate the circuit breaker or fuse box that controls your heating and cooling system and turn off the power.
2. **Remove Old Thermostat:** Carefully remove the cover of your old thermostat.
3. **Label Wires:** Before disconnecting any wires, use the provided cable labels to clearly mark each wire according to its terminal designation (e.g., R, G, Y, C, O, B, E, W2). Take a picture of the existing wiring for reference.
4. **Disconnect Wires:** Disconnect the wires from the old thermostat terminals.
5. **Remove Mounting Plate:** Unscrew and remove the old thermostat's mounting plate from the wall.

6.2. Wiring

The Suuwer S721 thermostat is compatible with both Heat Pump systems and Conventional systems. Refer to the wiring diagrams and terminal designations below.

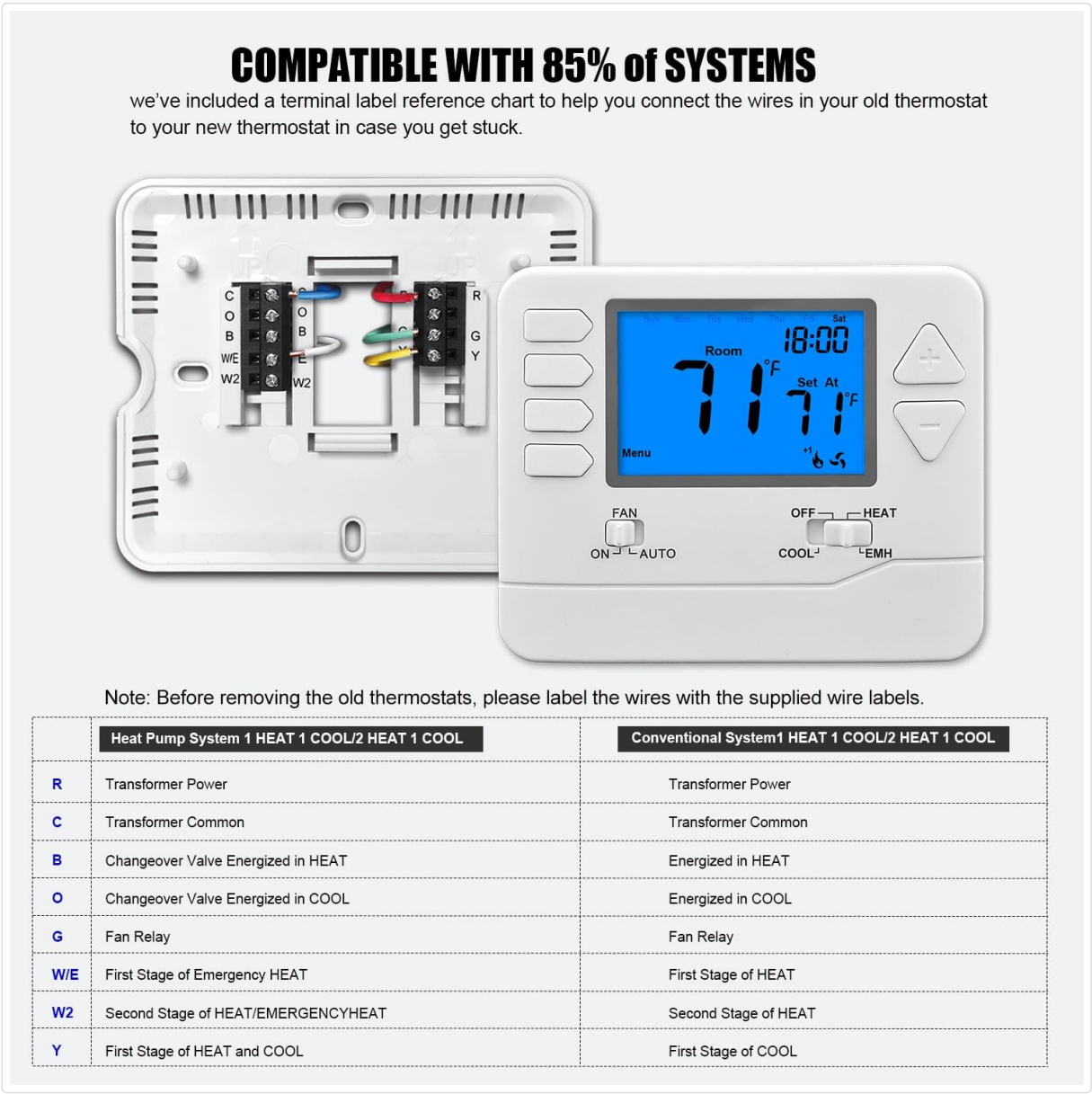


Image: Terminal designation chart for wiring.

Terminal Designations

Terminal	Function
RH	24VAC Power (Heating)
G	Fan Relay
Y	First Stage of Cooling / Heat Pump Compressor
C	24VAC Common
O	Changeover Valve Energized in COOL
B	Changeover Valve Energized in HEAT
E	Emergency Heat Relay
W2	Second Stage of Heat / Auxiliary Heat

Note: The thermostat can be powered by 24VAC or 2 AAA batteries. A common wire (C-wire) is generally

not required on most systems, but it is necessary for heat-only and cool-only systems.

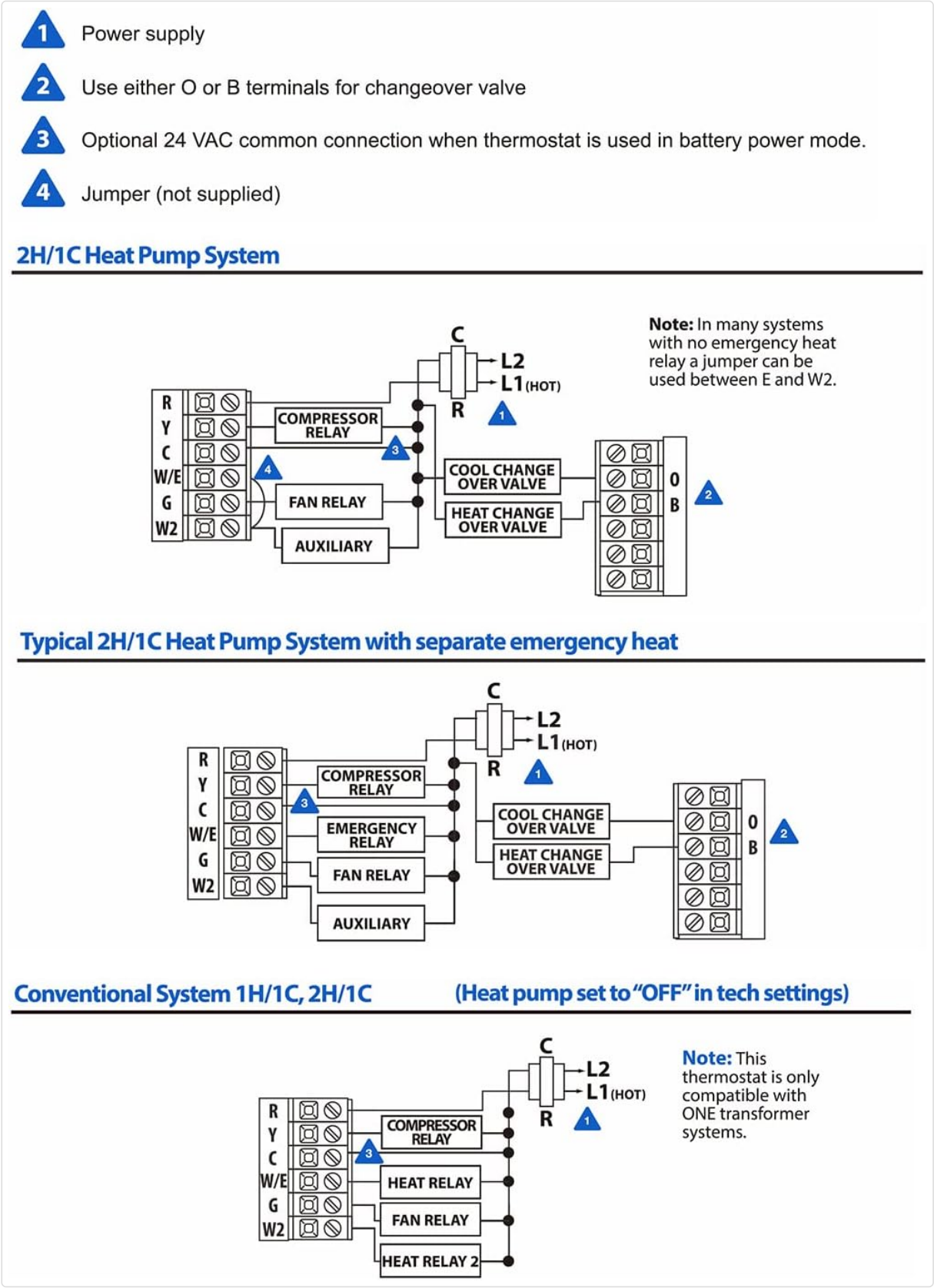


Image: Detailed wiring diagrams for various system types.

6.3. Mounting the Thermostat

1. Pull the thermostat body away from the sub-base.
2. Position the sub-base against the wall, ensuring wires pass through the opening.
3. Mark the mounting holes. Drill pilot holes if necessary (typically 3/16 inch for drywall, 7/32 inch for plaster).

4. Insert the plastic anchors into the drilled holes.
5. Secure the sub-base to the wall using the provided screws.
6. Connect the labeled wires to the corresponding terminals on the sub-base.
7. Align the thermostat body with the sub-base and snap it into place.
8. Restore power to your heating/cooling system at the main fuse or circuit breaker panel.

Image: Thermostat mounting instructions.

7. Operating Instructions

Once installed and powered, your Suuwer S721 thermostat is ready for operation.

7.1. Setting the Current Time

1. Press the **Set Time** button.
2. Use the **Up** or **Down** arrows to adjust the hour.
3. Press **Set Time** again to move to minutes, then adjust with **Up** or **Down**.
4. Press **Set Time** a third time to set the day of the week, then adjust with **Up** or **Down**.
5. Press **Menu** or wait a few seconds for the settings to save automatically.

7.2. Selecting System Mode

Use the **SYSTEM** switch to select your desired operating mode:

- **COOL:** The system will cool your home to the set temperature.
- **OFF:** The heating and cooling system is turned off.
- **HEAT:** The system will heat your home to the set temperature using the heat pump.
- **EMH (Emergency Heat):** Activates the auxiliary/emergency heating source. Use this only when the heat pump is not functioning or during extreme cold.

7.3. Setting Fan Mode

Use the **FAN** switch to select your desired fan operation:

- **AUTO:** The fan runs only when the heating or cooling system is actively operating. This is the most energy-efficient setting.
- **ON:** The fan runs continuously, regardless of whether the heating or cooling system is active. This can help with air circulation.

7.4. Adjusting Temperature

In either COOL or HEAT mode, use the **Up** or **Down** arrow buttons to increase or decrease the desired set temperature.

7.5. Advanced Settings (Menu)

Press the **Menu** button to access advanced settings. Use the **Up**/**Down** arrows to navigate and adjust values, and **Menu** to confirm or move to the next setting.

- **Temperature Calibration:** Adjusts the displayed room temperature to match an external thermometer if needed.
- **Compressor Delay Protection:** Set to ON (default) to protect your compressor from short cycling. This

introduces a 5-minute delay between cycles.

- **Filter Change Reminder:** Set the operating hours (50-2000 hours) after which the thermostat will display a reminder to change your air filter.
- **Heating/Cooling Swing (Cycle Rate):** Adjusts the temperature differential before the system turns on/off (0.2°F to 2°F). A smaller swing results in more frequent, shorter cycles.
- **Fahrenheit/Celsius Display:** Toggle between °F and °C.
- **12/24 Hour Clock:** Toggle between 12-hour (AM/PM) and 24-hour formats.

8. Maintenance

8.1. Battery Replacement

The thermostat is dual-powered by 24VAC or 2 AAA batteries. When the low battery indicator appears on the display, replace the batteries promptly.

1. Locate the easy-access battery compartment on the front bottom of the thermostat.
2. Open the compartment door.
3. Remove the old AAA batteries.
4. Insert two new AAA alkaline batteries, ensuring correct polarity (+/-).
5. Close the battery compartment door.

Image: Battery compartment with batteries.

8.2. Cleaning the Thermostat

To clean the thermostat, gently wipe the exterior with a soft, damp cloth. Do not use abrasive cleaners or solvents, as these can damage the finish or internal components.

9. Troubleshooting

If you encounter issues with your thermostat, refer to the following common problems and solutions:

Troubleshooting Guide

Problem	Possible Cause	Solution
No display or blank screen	No power, dead batteries, or tripped circuit breaker.	Check batteries and replace if necessary. Ensure power is on at the circuit breaker. Verify 24VAC wiring.
System not responding (no heating/cooling)	Incorrect system mode, wiring error, or system fault.	Ensure SYSTEM switch is set to COOL or HEAT. Check wiring connections. Verify HVAC system is operational.
Temperature inaccurate	Thermostat location, calibration needed.	Relocate thermostat away from drafts/heat sources. Use the temperature calibration feature in advanced settings.
Fan runs continuously in AUTO mode	Fan switch set to ON.	Ensure FAN switch is set to AUTO.
Compressor short cycles	Compressor delay protection off, or incorrect swing setting.	Ensure compressor delay protection is ON in advanced settings. Adjust heating/cooling swing to a larger value.

If the problem persists after attempting these solutions, please contact customer support.

10. Specifications

Technical Specifications

Feature	Detail
Model Name	S721 Heat Pump Thermostat
Product Dimensions	0.98"D x 4.72"W x 3.86"H
Controller Type	Push Button
Color	Off-white (Blue Backlight)
Specific Uses	Compatible with Heat Pump systems (with/without aux or emergency heat)
Temperature Control Type	2 Heating and 1 Cooling

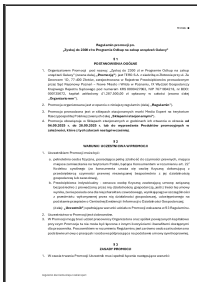
Feature	Detail
Power Source	Battery Powered (2 AAA) or 24 Volts (AC)
Material	Plastic
Display Type	Digital LCD
Mounting Type	Wall Mount
Temperature Display Range	41°F to 95°F
Temperature Control Range	44°F to 90°F
Accuracy	+/-1°F
Load Rating	1 Amp per terminal, 1.5 Amp maximum all terminals combined

11. Warranty and Support

The Suuwer S721 Non-Programmable Heat Pump Thermostat comes with a**2-year worry-free warranty**. For technical assistance, troubleshooting, or warranty claims, please contact Suuwer customer service. We are committed to providing 24-hour customer service to address your needs.
Before contacting support, please ensure you have reviewed this manual and attempted the troubleshooting steps.

Related Documents - S721

	SUUWER Non-Programmable Thermostat Troubleshooting Guide S701 Comprehensive troubleshooting guide for SUUWER S701 Non-Programmable Thermostats, addressing common issues like no heat, no cool, constant running, and temperature discrepancies.
	SUUWER Non-Programmable Thermostat Troubleshooting Guide S701 Comprehensive troubleshooting guide for SUUWER S701 Non-Programmable Thermostats, addressing common issues like no heat, no cool, constant running, and temperature discrepancies.
	Programa Samsung Select AI: Términos y Condiciones para Clientes Empresariales Términos y condiciones oficiales del programa Samsung Select AI, una plataforma B2B-SMB que ofrece beneficios y recompensas para compras empresariales elegibles de productos Samsung como smartphones y televisores.

	[Regulamin Promocji Media Expert: Zyskaj do 2300 zł na zakup urządzeń Galaxy] Szczegółowy regulamin promocji Media Expert, pozwalającej zyskać do 2300 zł przy wymianie starego urządzenia na nowe z serii Samsung Galaxy. Dowiedz się o warunkach uczestnictwa, zasadach promocji i wykluczeniach.
	[Bush Hog BCSS Series Skid Steer Brush Cutter Parts Manual] This document is a comprehensive parts manual for the Bush Hog BCSS Series Skid Steer Brush Cutters. It includes detailed parts lists, diagrams, and ordering information for various models such as BCSS-60, BCSS-60LF, BCSS-72, BCSS-72LF, BCSS-72HF, BCSS-90, BCSS-90HF, BCSS-S601, BCSS-S601LF, BCSS-S721, BCSS-S721LF, BCSS-721, BCSS-721HF, and BCSS-721LF.
	[Samsung Galaxy S24/S24 FE Promotion: Receive Free Galaxy Buds3 Pro] Details of the Samsung promotion offering free Galaxy Buds3 Pro with the purchase of a Galaxy S24 or Galaxy S24 FE. Includes promotion dates, eligible models, terms and conditions, and participation instructions.