Samsung QN77S90DAFXZA

Samsung 77-Inch Class OLED 4K S90D Series Smart TV

Model: QN77S90DAFXZA

Brand: Samsung

1. Introduction

This manual provides essential information for the setup, operation, maintenance, and troubleshooting of your new Samsung 77-Inch Class OLED 4K S90D Series Smart TV. Please read this manual thoroughly before using your TV to ensure safe and optimal performance.

The Samsung S90D Series TV offers a premium viewing experience with detailed images, strong contrast, and clear motion. Its advanced features include AI-powered 4K upscaling, Dolby Atmos sound, and a user-friendly Smart TV platform.



Figure 1.1: Samsung 77-Inch Class OLED 4K S90D Series Smart TV (Front View)

2. What's Included

Verify that all items are present in the product packaging:

- Samsung 77-Inch Class OLED 4K S90D Series Smart TV
- Power Cable
- User Manual
- SolarCell Remote™ TM2360E

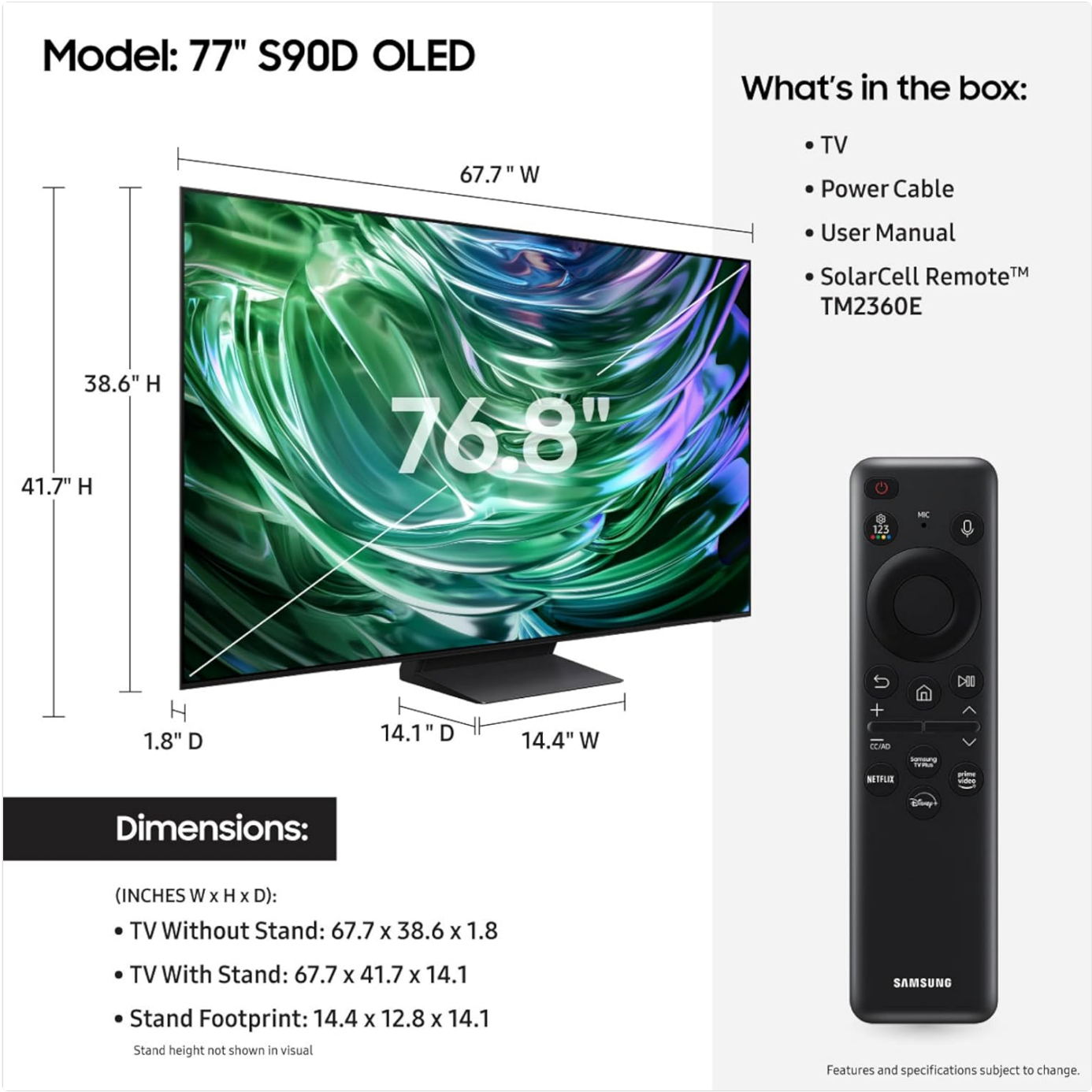


Figure 2.1: Included Components and Remote Control

3. Physical Overview & Dimensions

The Samsung S90D TV features an ultra-slim design for a sleek aesthetic. Below are the key dimensions:

- **TV Without Stand:** 67.7 inches (W) x 38.6 inches (H) x 1.8 inches (D)
- **TV With Stand:** 67.7 inches (W) x 41.7 inches (H) x 14.1 inches (D)
- **Stand Footprint:** 14.4 inches (W) x 12.8 inches (D)



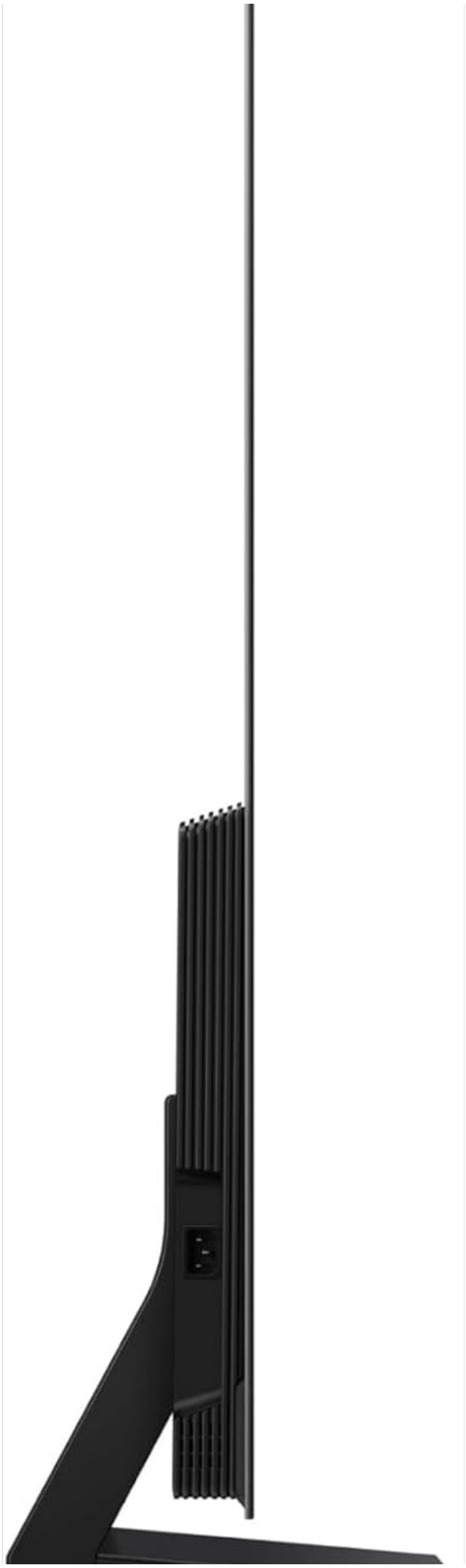




Figure 3.1: Side Profile of the Samsung S90D TV

Connectivity Ports

The TV is equipped with various ports for connecting external devices:

- **HDMI 2.1 Ports:** 4 (including 1 eARC)
- **USB Ports:** 2 (5V 0.5A)
- **Digital Audio Output:** 1 (Optical)
- **LAN Port:** 1
- **Cable/Antenna Input:** 1

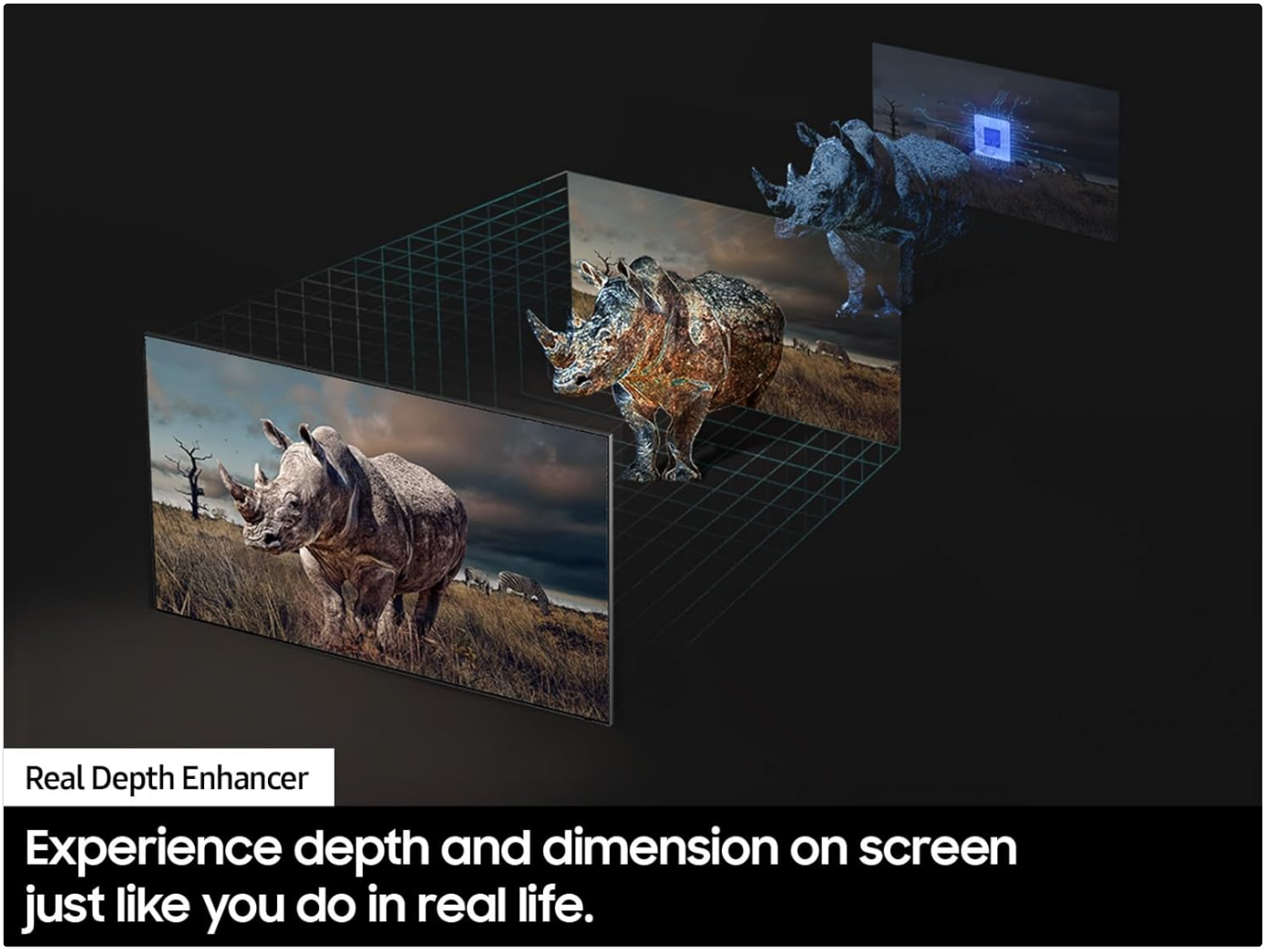


Figure 3.2: Rear Connectivity Ports

4. Setup & Installation

Before beginning installation, ensure you have adequate space and assistance if needed. The TV can be mounted on a wall or placed on a stand.

Stand Installation

1. Carefully place the TV screen-down on a soft, clean surface to prevent scratches.
2. Attach the provided stand legs to the designated slots on the TV's bottom, ensuring they are securely fastened with

the appropriate screws.

3. With assistance, carefully lift the TV and place it on a stable, level surface.

Wall Mounting

For wall mounting, a compatible VESA wall mount kit (sold separately) is required. Due to the TV's thin design, specific mounting considerations may apply. Consult the wall mount kit's instructions and consider professional installation for optimal safety and aesthetics.

Initial Power-Up

1. Connect the power cable to the TV's power input and then to a wall outlet.
2. Press the power button on the remote control or the TV to turn it on.
3. Follow the on-screen instructions to complete the initial setup, including network connection and channel scanning.

5. Operating Your TV

Picture & Sound Technologies

- **OLED Technology:** Experience pure blacks, bright whites, and Pantone-validated colors for a dramatic and detailed view.
- **OLED HDR+:** Analyzes each scene to boost brightness and improve image clarity, delivering powerful brightness and rich contrast.
- **Motion Xcelerator 144Hz:** Enjoy ultra-smooth motion and virtually no lag or blur for games and fast-paced content.
- **Real Depth Enhancer:** Creates an immersive 3D-like experience by increasing foreground contrast, mirroring how the human eye processes depth.
- **4K AI Upscaling:** Content is instantly transformed to incredibly sharp 4K resolution using AI-based formulas.
- **Dolby Atmos & Object Tracking Sound Lite:** Delivers 3D surround sound that follows on-screen movement using virtual top channel audio.
- **NQ4 AI Gen2 Processor:** The powerful AI-powered processor drives 4K picture quality, intuitive Smart TV Hub, and Dolby Atmos sound.
- **Pantone Validated:** Ensures accurate and beautiful color reproduction, validated by industry-leading experts.
- **Active Voice Amplifier Pro:** Leverages AI to analyze audio, distinguishing and amplifying voices against background sounds.
- **Adaptive Sound Pro:** Automatically adjusts audio based on room setup and content for clear, balanced sound.

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Video 5.1: SAMSUNG S90D TV Product Overview. This video highlights the key features and visual quality of the S90D TV.

Smart Features

- **Samsung Tizen OS:** Stream your favorite shows, play games, and access a wide range of apps and streaming services.
- **Samsung Gaming Hub:** A centralized platform for streaming games directly from your TV, often without a console.
- **AI Customization Mode:** AI detects content and automatically optimizes picture settings for the best viewing experience.
- **AI Energy Mode:** Sensors and the processor work together to analyze on-screen content and ambient lighting to automatically adjust picture settings to reduce energy usage.

Remote Control

The included SolarCell Remote™ (TM2360E) is designed for convenience and eco-friendliness. It features dedicated buttons for popular streaming services and can be charged by indoor lighting or sunlight, eliminating the need for disposable batteries.

6. Maintenance

To maintain the performance and appearance of your TV, follow these simple guidelines:

- **Screen Cleaning:** Gently wipe the screen with a soft, lint-free cloth. For stubborn smudges, slightly dampen the cloth with water or a specialized screen cleaner. Avoid harsh chemicals or abrasive materials.
- **Frame Cleaning:** Use a soft, dry cloth to wipe the TV frame.
- **Ventilation:** Ensure proper ventilation around the TV to prevent overheating. Do not block the ventilation openings.

7. Troubleshooting

If you encounter issues with your TV, refer to the following common troubleshooting steps:

- **No Power:** Check if the power cable is securely connected to both the TV and the wall outlet. Try plugging another device into the same outlet to confirm it has power.
- **No Picture/Poor Picture Quality:** Ensure the correct input source is selected. Check all cable connections (HDMI, antenna) for looseness. If using an external device, verify it is powered on and functioning correctly.
- **No Sound/Poor Sound Quality:** Check the volume level and ensure the TV is not muted. Verify audio cable connections. If using external audio devices (soundbar, receiver), ensure they are powered on and correctly configured.
- **Remote Control Not Working:** Ensure the remote is charged (expose the solar panel to light). Point the remote directly at the TV.

For more detailed troubleshooting or persistent issues, please contact Samsung's customer service team at 1-800-SAMSUNG.

8. Specifications

Feature	Detail
Brand	Samsung
Model Number	QN77S90DAFXZA
Screen Size	77 Inches
Display Technology	OLED
Resolution	4K (3840 x 2160)
Refresh Rate	120 Hz (Motion Xcelerator 144Hz)
Processor	NQ4 AI Gen2 Processor
Speaker Type	2.1CH
Connectivity	Bluetooth, Wi-Fi

Feature	Detail
Item Weight	80.7 Pounds
Product Dimensions	14.1"D x 67.7"W x 41.7"H
Color Name	Graphite Black

9. Energy Efficiency

The Samsung S90D TV is designed with energy efficiency in mind. Refer to the Energy Guide label for estimated annual energy consumption:



Figure 9.1: Energy Guide Label

Estimated Yearly Energy Cost: $56 (based on 16 cents per kWh and 5 hours use per day)
Estimated Yearly Electricity Use: 348 kWh

10. Warranty & Support

For product support, troubleshooting, or warranty claims, please contact Samsung Customer Service:

- **Customer Service:** 1-800-SAMSUNG

Additional protection plans may be available for purchase to extend coverage beyond the standard manufacturer's warranty. Please refer to your purchase documentation for details on available plans.

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