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> Samsung 55-Inch Class OLED S90F 4K Smart TV User Manual

Samsung QN55S90FAFXZA

Samsung 55-Inch Class OLED S90F 4K Smart TV User Manual

Model: QN55S90FAFXZA | Brand: Samsung

1. INTRODUCTION

This user manual provides comprehensive instructions for the setup, operation, and maintenance of your Samsung 55-Inch Class OLED S90F 4K Smart TV. Designed with the NQ4 AI Gen3 Processor, this television offers advanced 4K AI Upscaling Pro, OLED HDR+, Motion Xcelerator 144Hz, and integrated Samsung Vision AI for an enhanced viewing experience. Please read this manual thoroughly before using your TV to ensure proper and safe operation.

Your Samsung S90F TV is equipped with our fastest 4K processor, powering Samsung Vision AI to upscale content and place you at the center of the action. Experience powerful OLED HDR+ contrast and Pantone® Validated color, revealing every detail. Dynamic motion enhancement technology ensures ultra-smooth action for crisp visuals at blazing-fast speeds, ideal for both streaming and gaming.



Figure 1.1: Front view of the Samsung 55-Inch Class OLED S90F 4K Smart TV.

2. WHAT'S IN THE BOX

Carefully unpack your television and ensure all components are present. The package should contain the following items:

- Samsung 55-Inch Class OLED S90F 4K Smart TV
- User Manual (this document)
- Remote Control
- Power Cable
- Stand components (if applicable)

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55" S90F



Dimensions:

(INCHES W x H x D):

- TV Without Stand: 48.2 x 27.9 x 1.6
- TV With Stand: 48.2 x 30.5 x 10.4
- Stand Footprint: 14.4 x 11.8 x 10.4

What's in the box:



TV



User Manual



SolarCell™ Remote
TM2560E



Power Cable

Features and specifications subject to change.

Figure 2.1: Package contents and TV dimensions.

3. SETUP

3.1 Unpacking and Placement

Remove the TV from its packaging. It is recommended to have at least two people for safe handling due to the size and weight of the unit. Place the TV on a stable, level surface or mount it securely to a wall using a compatible VESA mount (sold separately). Ensure adequate ventilation around the TV.

3.2 Connecting Peripherals

Connect your external devices such as cable boxes, Blu-ray players, gaming consoles, and sound systems to the appropriate ports on the back of the TV. Refer to Figure 3.1 for port locations.

- **HDMI Ports (1-4):** For high-definition video and audio from external devices. HDMI 3 (eARC) supports enhanced audio return. HDMI 1, 2, 3, and 4 support 4K@144Hz for gaming.
- **USB-A Ports:** Standard rectangular ports for power or media playback.

- **Ethernet (LAN):** For wired internet connection.
- **Optical Audio Out:** For connecting to soundbars or receivers.
- **Cable/ANT:** For over-the-air antenna or cable TV signals.
- **Headphone:** Audio jack for headphones or older stereo systems.

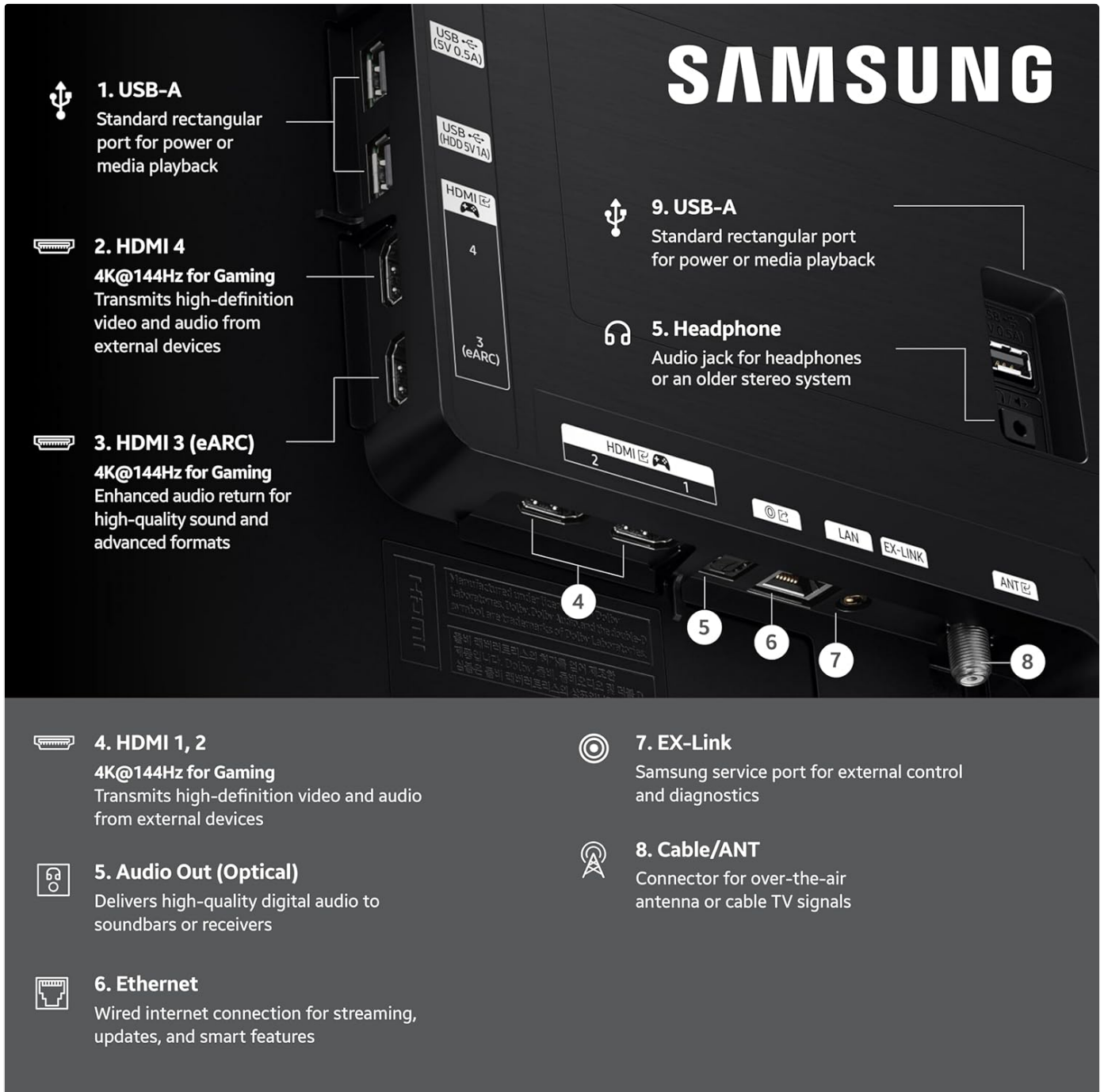


Figure 3.1: TV connectivity ports.

3.3 Power Connection

Once all devices are connected, plug the power cable into the TV and then into a wall outlet. The TV will enter standby mode.

4. OPERATING YOUR TV

4.1 Initial Setup and Smart Features

Upon first power-on, the TV will guide you through an initial setup process. This includes connecting to your Wi-Fi network, signing into your Samsung account, and configuring smart features like Alexa Built-in. The Tizen OS provides a

responsive and intuitive user interface.

4.2 Key Features Overview

Your Samsung S90F TV is packed with advanced features designed to enhance your viewing and gaming experience:

- **NQ4 AI Gen3 Processor:** Our most advanced 4K AI processor, powered by 128 neural networks, delivers AI-enhanced picture and optimized sound for an exceptional 4K experience.
- **4K AI Upscaling Pro:** Transforms everything you watch to impressive 4K resolution, ensuring incredibly sharp and smooth picture quality.
- **OLED HDR+:** Experience powerful brightness and deeper contrast in every pixel, revealing nuanced detail in each scene.
- **Motion Xcelerator 144Hz:** Brings smooth motion to sports and tear-free gaming with support for VRR games at up to 4K 144Hz.
- **AI Motion Enhancer Pro:** Sharpens and smooths out the motion of fast-moving balls and text, ensuring you don't miss any action.
- **Auto HDR Remastering:** Intelligently transforms SDR content to HDR-like quality with brighter highlights, more vibrant colors, and clearer details.
- **Active Voice Amplifier Pro and Adaptive Sound Pro:** Sound tailored to your space and content. The AI processor identifies sounds, optimizes audio, and amplifies dialogue based on your room's acoustics.
- **Samsung Gaming Hub:** Grab a controller and dive into thousands of games – no console required.
- **Endless Free Content:** Stream over 2,700 free channels, including 400+ Samsung TV Plus premium channels.

SAMSUNG S90F



KEY FEATURES

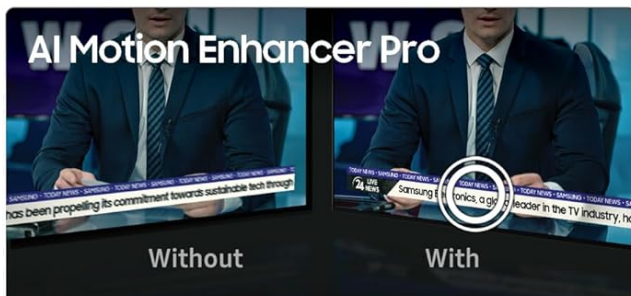
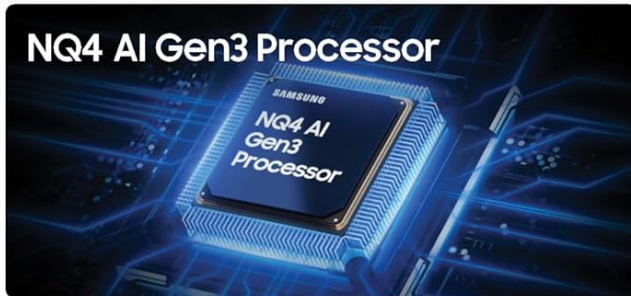


Figure 4.1: Overview of key features.

4.3 Samsung Gaming Hub

The Samsung Gaming Hub provides direct access to cloud gaming services without the need for a separate console. Simply connect a compatible controller and explore a vast library of games.

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EA Play

OLED

Play EA SPORTS FC™ 25. No console required.

Claim 2 months of Xbox Game Pass Ultimate
on the Samsung Promotion app



Samsung Gaming Hub

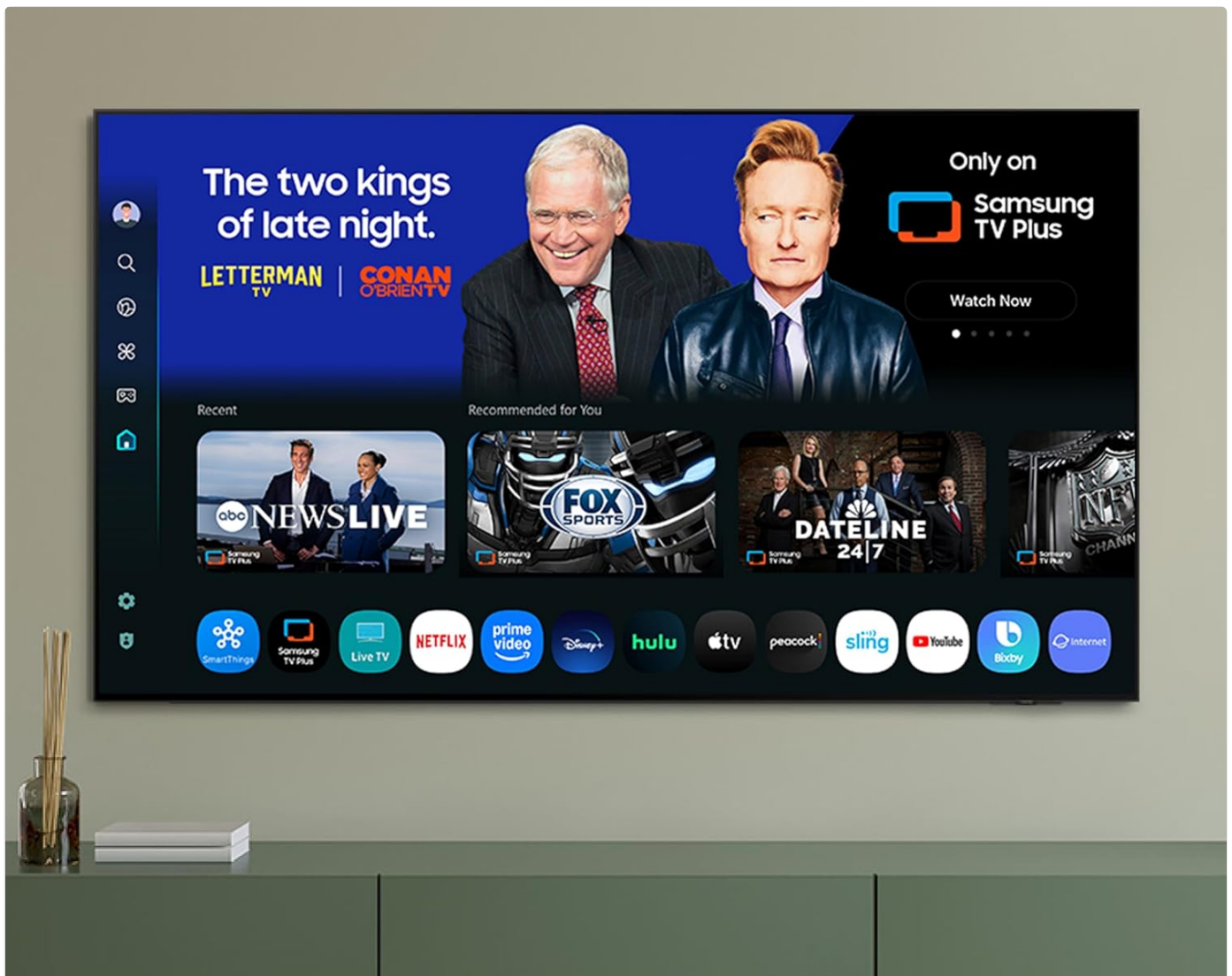


Samsung account, internet connection, additional gaming service subscription and compatible controller are required. 2-month trial of Game Pass Ultimate ("Offer") available on select 2022 or later Samsung Smart TVs ("Qualifying Product"). To receive Offer you must: (1) by 8/12/25, while supplies last, claim Offer in Samsung Promotion app on a Qualifying Product and receive code, and (2) by 8/19/25 redeem by entering the code received at xbox.com/redeem. Valid for accounts without an active Xbox Game Pass subscription only. Xbox Game Pass Ultimate will auto renew at \$19.99/mo (or then-current price) after free trial until cancellation. Cancel anytime. Terms and conditions apply at xbox.com/en-US/legal/subscription-terms.

Figure 4.2: Samsung Gaming Hub in action.

4.4 Endless Free Content

Access a wide range of free content through Samsung TV Plus, offering over 2,700 channels including premium options, directly on your TV.



Endless Free Content

Stream 2,700+ free channels including 400+ Samsung TV Plus premium channels*

*Samsung Account required for network-based smart services, including streaming apps and other smart features. Computer, mobile or other device may be necessary to create/log in to Samsung Account (free to download and create). Without Account log in, only external device connections (e.g., via HDMI) and terrestrial/over-the-air TV (only for TVs with tuners) available. Channels may vary by location and are subject to change. UI is subject to change without prior notice.

Figure 4.3: Samsung TV Plus interface.

5. MAINTENANCE

5.1 Cleaning Your TV

To clean the screen, gently wipe it with a soft, lint-free cloth. For stubborn marks, slightly dampen the cloth with water or a screen-specific cleaning solution. Avoid using harsh chemicals or abrasive materials. For the TV frame, use a soft, dry cloth.

5.2 Software Updates

Your TV may receive software updates periodically to improve performance and add new features. Ensure your TV is connected to the internet to receive these updates. You can usually check for updates manually through the TV's settings menu.

6. TROUBLESHOOTING

If you encounter issues with your TV, refer to the following common troubleshooting steps before contacting customer support.

Problem	Possible Solution
No Power	Ensure the power cable is securely plugged into both the TV and a working wall outlet. Try a different outlet.
No Picture / Black Screen	Check if the TV is turned on. Verify the correct input source is selected. Check all cable connections (HDMI, etc.). Try restarting the TV by unplugging it for 30 seconds and plugging it back in.
No Sound	Check the volume level and ensure mute is off. Verify external audio devices (soundbar, receiver) are properly connected and powered on. Check TV audio output settings.
Remote Control Not Working	Replace the batteries in the remote control. Ensure there are no obstructions between the remote and the TV's sensor. Try pairing the remote again if it's a Bluetooth remote.
Poor Picture Quality	Check the resolution of the input source. Adjust picture settings (brightness, contrast, sharpness). Ensure cables are not damaged.

7. SPECIFICATIONS

Detailed technical specifications for your Samsung 55-Inch Class OLED S90F 4K Smart TV:

Feature	Detail
Brand Name	Samsung
Item Weight	38.1 pounds
Product Dimensions	10.4 x 48.2 x 30.5 inches
Item model number	QN55S90FAFXZA
Batteries	2 AAA batteries required.
Color Name	Graphite Black
Special Features	Built-In Speaker, Game Mode
Standing screen display size	55 Inches
Aspect Ratio	16:9
Display Technology	OLED
Resolution	4K
Refresh Rate	120 Hz
Included Components	User Manual, Stand, Remote Control, Power Cable
Connectivity Technology	Bluetooth, Wi-Fi, USB, Ethernet, HDMI
Date First Available	April 9, 2025

Note: Specifications are subject to change without notice. For the most up-to-date information, please refer to the official Samsung website.

8. WARRANTY AND SUPPORT

Your Samsung 55-Inch Class OLED S90F 4K Smart TV comes with a full manufacturer's warranty. Please refer to the warranty card included in your product packaging for specific terms and conditions, including coverage duration and what is covered.

For technical support, service, or additional information, please visit the official Samsung support website or contact their customer service. Keep your proof of purchase for warranty claims.

Optional protection plans are available for extended coverage. Please check with your retailer for details on 3-Year or 4-Year Protection Plans, or the Complete Protect plan.

Online Support: [Samsung Support Website](#)