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> Samsung 98-Inch Class Neo QLED 4K QN90F Series Smart TV User Manual

## Samsung QN98QN90FAFXZA

# Samsung 98-Inch Class Neo QLED 4K QN90F Series Smart TV User Manual

Model: QN98QN90FAFXZA

## INTRODUCTION

This manual provides comprehensive instructions for the setup, operation, maintenance, and troubleshooting of your Samsung 98-Inch Class Neo QLED 4K QN90F Series Smart TV. Please read this manual thoroughly before using your television to ensure proper and safe operation.



Image: Front view of the Samsung 98-Inch Neo QLED 4K QN90F Series Smart TV.

## WHAT'S IN THE BOX

Verify that all components are present before beginning the setup process.

- Samsung 98-Inch Neo QLED 4K QN90F Series Smart TV
- Power Cable
- Remote Control (SolarCell™ Remote TM2560E)
- TV Stand Components
- User Manual (this document)

# SAMSUNG

# 98" QN90F

**Dimensions:**

(INCHES W x H x D):

- TV Without Stand: 86 x 49.2 x 1.2
- TV With Stand: 86 x 51.4 x 14.4
- Stand Footprint: 18.9 x 11.2 x 14.4

**What's in the box:**

- TV
- User Manual
- SolarCell™ Remote TM2560E
- Power Cable

Features and specifications subject to change.

Image: Diagram illustrating the TV dimensions and the contents of the product box, including the TV, remote, power cable, and user manual.

## SETUP GUIDE

## 1. Physical Installation

Choose a suitable location for your TV. Ensure adequate ventilation around the unit. You can either use the included stand or a compatible VESA wall mount (sold separately).

1. **Stand Installation:** Follow the instructions provided in the separate stand assembly guide. Ensure all screws are securely fastened.
2. **Wall Mount Installation:** Refer to the wall mount manufacturer's instructions. Use appropriate wall anchors and ensure the mount can support the TV's weight (approximately 155.6 pounds).

## 2. Connecting External Devices

Connect your external devices such as Blu-ray players, game consoles, soundbars, and antennas to the appropriate ports on the back of the TV.

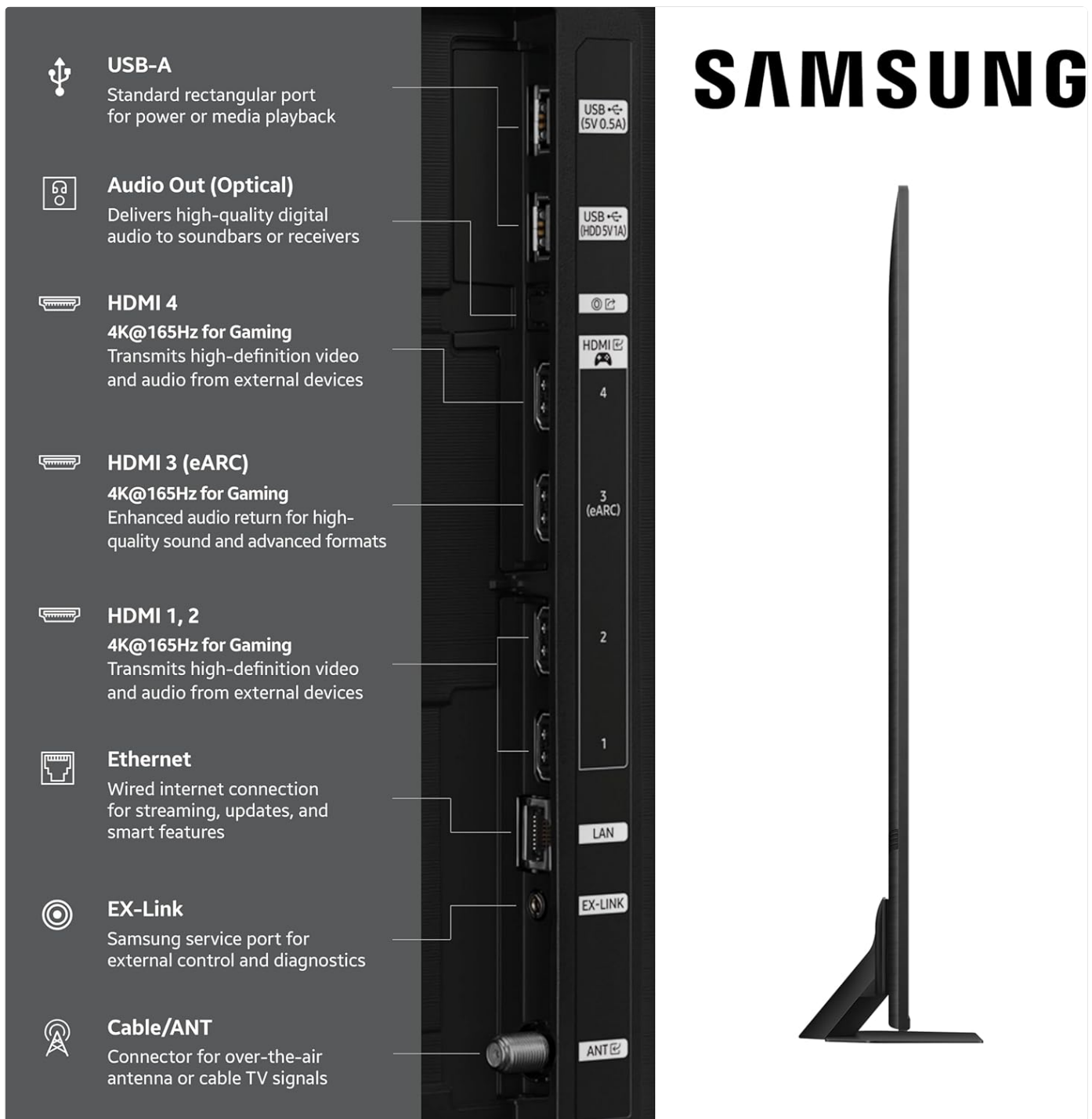


Image: Detailed view of the TV's rear connection panel, showing various input and output ports.

- **HDMI Ports (1-4):** Connect high-definition devices. HDMI 3 supports eARC for enhanced audio return. HDMI 4 supports 4K@165Hz for gaming.
- **USB-A Ports:** For power or media playback from USB storage devices.
- **Audio Out (Optical):** Connect to soundbars or receivers for digital audio.
- **Ethernet (LAN):** For wired internet connection.
- **Cable/ANT:** Connect an antenna or cable TV signal.
- **EX-Link:** Samsung service port for external control and diagnostics.

### 3. Power Connection & Initial Setup

1. Connect the power cable to the TV and then to a wall outlet.
2. Press the Power button on the remote control to turn on the TV.
3. Follow the on-screen instructions to complete the initial setup, including language selection, network connection (Wi-Fi or Ethernet), and channel scanning.

## OPERATING THE TV

### Remote Control

Your TV comes with a SolarCell™ Remote (TM2560E). This remote can be charged by indoor lighting or USB-C. Familiarize yourself with its buttons for navigation, volume, channel, and smart features.

### Smart TV Features

The Samsung QN90F Series TV offers a range of smart features powered by the Tizen operating system.

- **Samsung Gaming Hub:** Access cloud gaming services and connect your controllers directly to the TV.
- **Streaming Apps:** Enjoy popular streaming services like Netflix, Hulu, Disney+, and more.
- **Samsung TV Plus:** Access over 2,700 free channels, including 400+ premium channels.
- **SmartThings:** Connect and control compatible smart home devices.



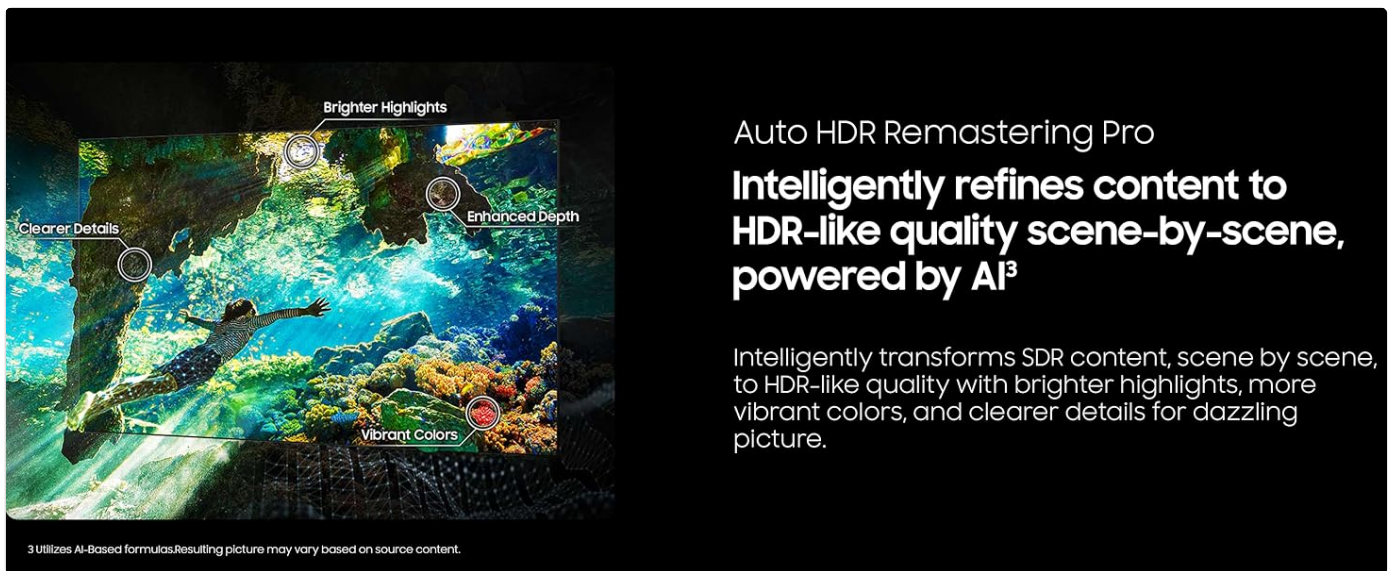
#### Motion Xcelerator 165Hz

### Bring smooth motion to sports and enjoy virtually tear-free gaming

Play your favorite video games and enjoy sports with blazing fast motion clarity with virtually no lag or blur. You'll get consistently beautiful visuals and ultra-smooth performance at top speeds, so your picture stays stunning throughout all the action. With dynamic refresh technology, it supports VRR games at up to 4K 165Hz<sup>5</sup>, providing incredible performance for your favorite games.

5 4K 165Hz is only available with PC connected games that support such specifications (PC graphic card required). Performance may vary.

Image: Screenshot of the Samsung Gaming Hub, displaying various game titles and platforms.



## Auto HDR Remastering Pro Intelligently refines content to HDR-like quality scene-by-scene, powered by AI<sup>3</sup>

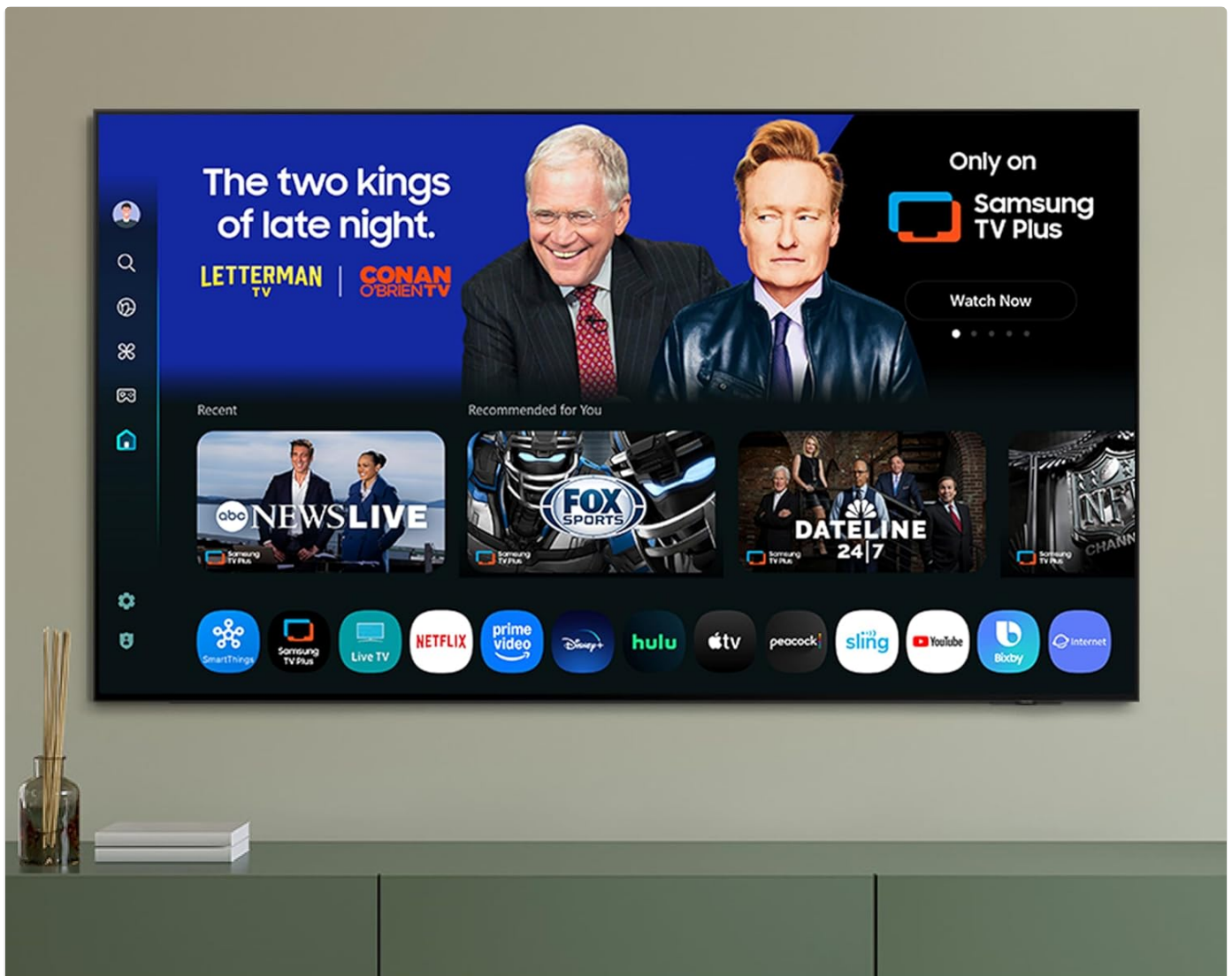
Intelligently transforms SDR content, scene by scene, to HDR-like quality with brighter highlights, more vibrant colors, and clearer details for dazzling picture.

Image: Screenshot of the Samsung Smart TV home screen, featuring various streaming applications and content options.

### Picture and Sound Settings

Access the TV's menu to adjust picture modes (Standard, Dynamic, Movie, Filmmaker Mode), brightness, contrast, color, and sound settings (Sound Mode, Equalizer, Dolby Atmos).

The TV features a **NQ4 AI Gen3 Processor** which enhances picture and sound quality using artificial intelligence.



## 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.

Image: A visual representation of the NQ4 AI Gen3 Processor, highlighting its advanced capabilities.

- **Neo Quantum HDR+:** Provides elevated 4K viewing with superb brightness and vivid colors.
- **Glare Free Screen:** Reduces reflections for an optimal viewing experience in various lighting conditions.
- **4K AI Upscaling Pro:** Transforms lower-resolution content to near-4K quality using 128 AI neural networks.
- **Motion Xcelerator 165Hz:** Ensures smooth motion for sports and gaming, reducing blur and tearing.
- **AI Motion Enhancer Pro:** Smooths fast-moving objects and text to maintain clarity during action scenes.
- **Auto HDR Remastering Pro:** Intelligently refines SDR content to HDR-like quality.



## 4K AI Upscaling Pro

AI transforms content to a sharp, smooth 4K experience with 128 neural networks\*

\*Utilizes AI-Based formulas.

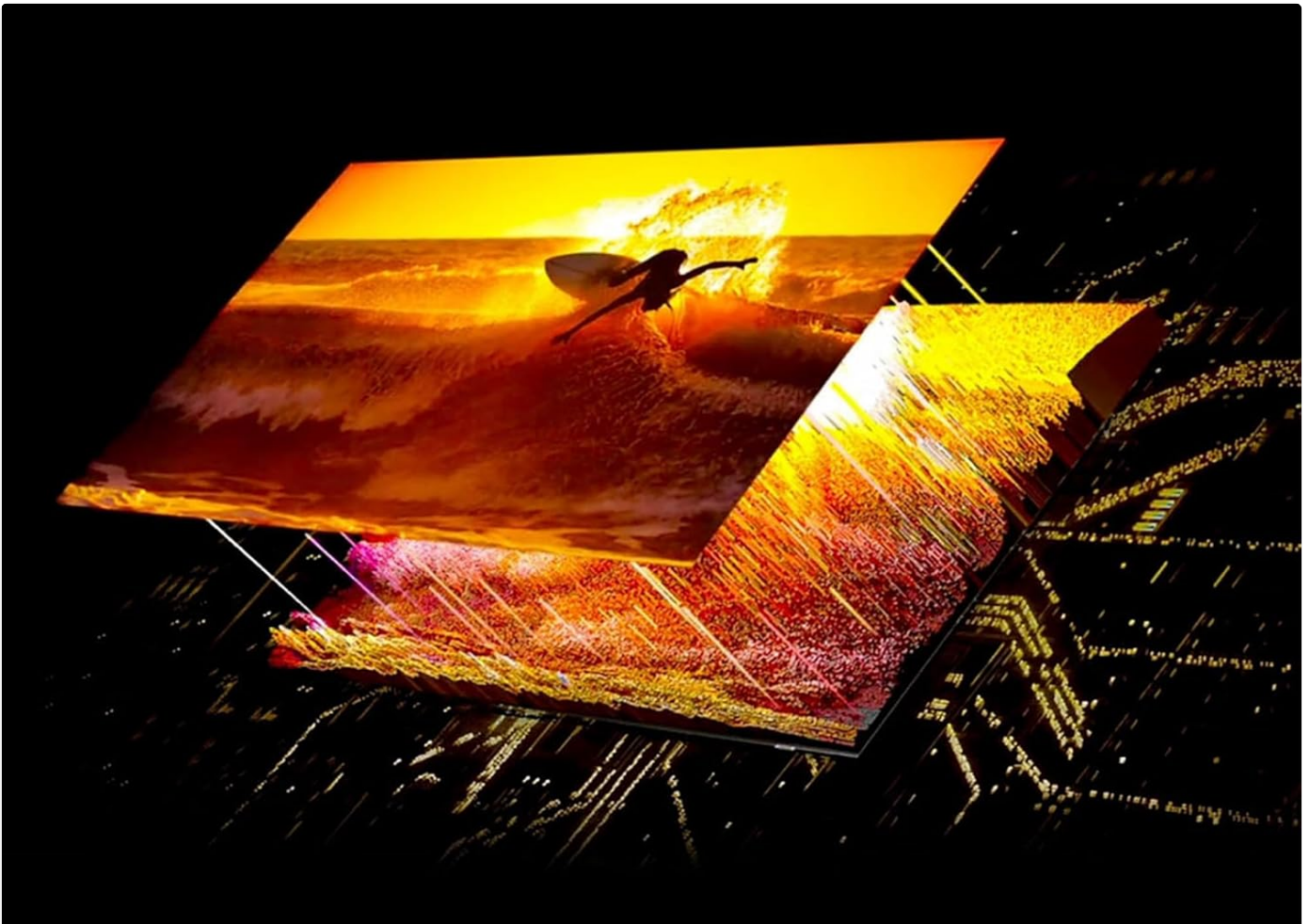
Image: Side-by-side comparison demonstrating the visual improvement from SDR to Neo Quantum HDR+.

**Our brightest glare-free 4K TV,  
perfect for sun-filled rooms**

Our best 4K AI processor powers Samsung Vision AI<sup>+</sup>  
for stunning picture on a glare-free screen,  
multi-dimensional audio, and breakthrough TV experiences.



Image: Visual comparison illustrating the effectiveness of the Glare Free screen technology.



## Quantum Matrix Technology Plus with Mini LED

The smallest details shine through in the darkest and brightest scenes with the precision screen control and light management offered by our Quantum Mini LEDs

Image: Example of 4K AI Upscaling Pro, highlighting improved clarity and detail in an image.



## Neo Quantum HDR+

Elevated 4K viewing with superb brightness and vivid colors\*

\*50" and 43" have Neo Quantum HDR

Image: Dynamic scene of a racing car, demonstrating the smooth motion provided by Motion Xcelerator 165Hz.

## MAINTENANCE

### Cleaning the TV

- **Screen:** Gently wipe the screen with a soft, dry microfiber cloth. For stubborn marks, lightly dampen the cloth with water or a screen-cleaning solution specifically designed for electronics. Do not spray liquid directly onto the screen.
- **Frame and Stand:** Use a soft, dry cloth to wipe dust from the frame and stand.
- **Remote Control:** Wipe with a dry cloth. Avoid using harsh chemicals.

### Software Updates

Ensure your TV's software is up to date for optimal performance and access to the latest features. You can usually check for updates through the TV's settings menu (Settings > Support > Software Update).

## TROUBLESHOOTING

Issue	Possible Solution
No power	Check if the power cable is securely connected to the TV and the wall outlet. Ensure the outlet is functional.
No picture, but sound is present	Verify the correct input source is selected. Check HDMI cable connections. Try a different HDMI port.
No sound, but picture is present	Check the TV's volume and mute settings. Ensure external audio devices (soundbar, receiver) are properly connected and powered on.
Remote control not working	Ensure the remote is charged (SolarCell™ Remote). Point the remote directly at the TV. Remove any obstructions.
Poor picture quality	Adjust picture settings (brightness, contrast, sharpness). Check the quality of the input source. Ensure the TV's software is updated.
Cannot connect to Wi-Fi	Restart your router and modem. Ensure the Wi-Fi password is correct. Move the TV closer to the router or use a wired Ethernet connection.

For more detailed troubleshooting, refer to the online support resources or contact Samsung customer service.

## SPECIFICATIONS

Feature	Detail
Brand	Samsung
Model Number	QN98QN90FAFXZA
Screen Size	98 Inches
Display Technology	Neo QLED
Resolution	4K (3840 x 2160)
Refresh Rate	120 Hz (up to 165Hz for PC gaming)
Processor	NQ4 AI Gen3 Processor
Special Features	Built-In Speaker, Game Mode, Glare Free, Neo Quantum HDR+, 4K AI Upscaling Pro, Motion Xcelerator 165Hz, Object Tracking Sound+ w/Dolby Atmos, Gaming Hub, Alexa Built-in
Connectivity	Bluetooth, Ethernet, HDMI (x4), USB (x2), Wi-Fi
Product Dimensions (with stand)	86" W x 51.4" H x 14.4" D
Item Weight	155.6 pounds

Feature	Detail
On-mode Power Consumption	227 watts

## WARRANTY INFORMATION

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Your Samsung TV is covered by a limited manufacturer's warranty. Please refer to the warranty card included with your product or visit the official Samsung website for detailed terms and conditions, including coverage period and service procedures. Keep your proof of purchase for warranty claims.

## SUPPORT

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For technical assistance, product registration, or to download the latest software and manuals, please visit the official Samsung support website:

[www.samsung.com/us/support/](http://www.samsung.com/us/support/)

You may also contact Samsung customer service directly:

- **Phone:** Refer to the contact information provided on the Samsung support website for your region.
- **Online Chat:** Available through the Samsung support website.