

## Samsung QN80F

# Samsung 55-inch Neo QLED 4K QN80F Smart TV (2025) User Manual

Model: QN80F

## 1. INTRODUCTION

This manual provides essential information for the setup, operation, and maintenance of your Samsung 55-inch Neo QLED 4K QN80F Smart TV (2025). Please read this manual thoroughly to ensure proper use and to maximize your viewing experience. Keep this manual for future reference.



Figure 1.1: Samsung 55-inch Neo QLED 4K QN80F Smart TV with bundled items.

## 2. WHAT'S IN THE BOX

Verify that all components are present before proceeding with setup:

- Samsung Neo QLED 4K QN80F Vision AI Smart TV (2025)
- SOLARCELL REMOTE TM2560E (Remote Control)
- Power Cable
- User Manual (this document)
- Limited Protection documentation
- CPS 1 Year Extended Protection Plan documentation
- Deco Gear 6FT Universal 4K HDMI 2.0 Cable with 28AWG Pure Copper Conductors (x2)
- Deco Gear Television Home Theater Essentials: Beginner's Guide

## 3. SETUP

### 3.1 Unpacking and Placement

Carefully remove the TV from its packaging. It is recommended to have at least two people for this process. Place the TV on a stable, flat surface or mount it on a wall using a compatible VESA mount (sold separately). Ensure adequate ventilation around the TV.



Figure 3.1: Front view of the Samsung QN80F Smart TV.

### 3.2 Connecting Power

Connect the power cable to the TV's power input and then plug it into a wall outlet. Do not plug the TV into a power



strip or extension cord until all other connections are made.

### 3.3 Connecting External Devices

Use HDMI cables to connect external devices such as Blu-ray players, gaming consoles, or soundbars to the HDMI ports on the back of the TV. The TV features multiple HDMI ports, including one with eARC support for enhanced audio return channel functionality.



Figure 3.2: Rear input ports of the Samsung QN80F Smart TV.

### 3.4 Initial Setup

Upon first power-on, the TV will guide you through the initial setup process, including language selection, network connection (Wi-Fi or Ethernet), and channel scanning. Follow the on-screen instructions.

For detailed guidance on setting up your home theater system, refer to the included *Deco Gear Television Home Theater Essentials: Beginner's Guide*.

## 4. OPERATING YOUR TV

### 4.1 Basic Functions

- **Power On/Off:** Press the power button on the remote control or the TV.
- **Input Selection:** Use the 'Source' button on the remote to switch between connected devices (HDMI 1, HDMI 2, TV, etc.).
- **Volume Control:** Use the volume buttons on the remote.
- **Channel Navigation:** Use the channel buttons for broadcast TV.

### 4.2 Smart TV Features and AI Enhancements

Your Samsung QN80F Smart TV integrates advanced AI technologies to optimize your viewing and listening experience.

#### 4.2.1 Samsung Vision AI

Samsung Vision AI enhances picture quality, sound, and overall TV experiences. It utilizes individual mini-LED zones for detailed picture and provides multi-dimensional sound that tracks on-screen action. This technology also offers personalized TV experiences.

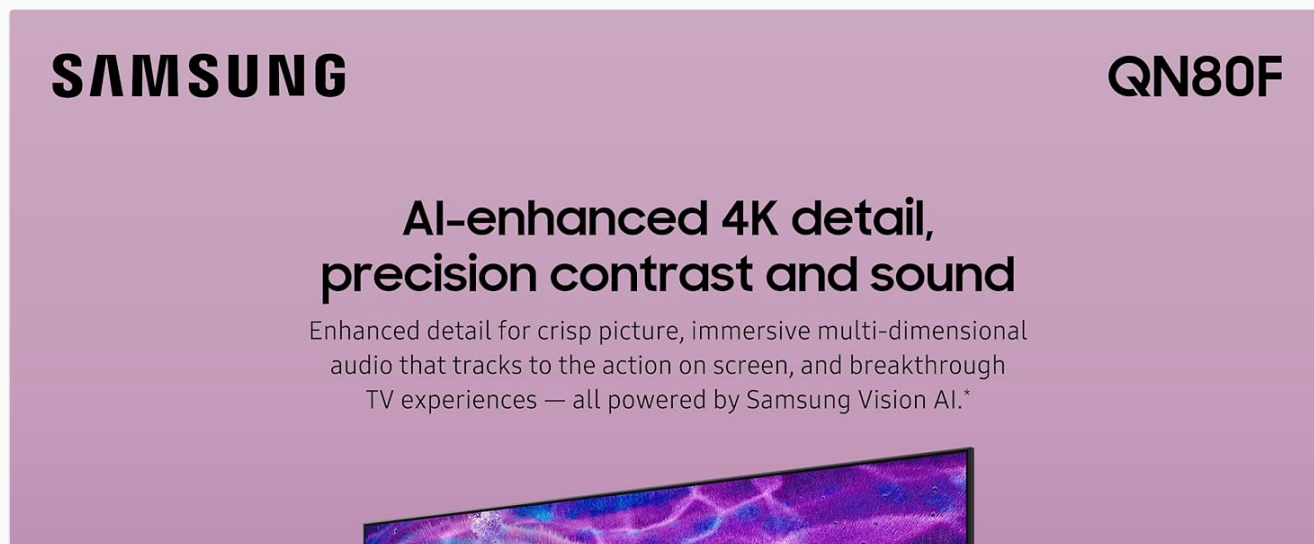


Figure 4.1: Samsung Vision AI enhancing picture and sound.

#### 4.2.2 NQ4 AI Gen2 Processor

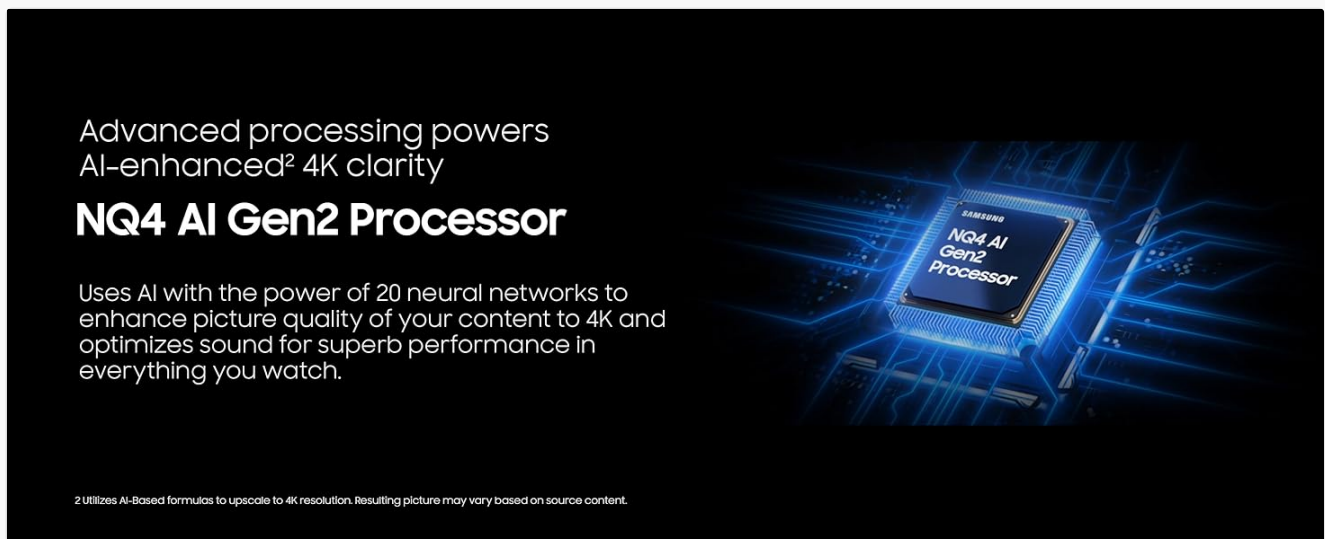
The NQ4 AI Gen2 Processor, powered by 20 neural networks, upscales content to 4K resolution, even if the original source is lower resolution. It also optimizes sound for a superior overall viewing experience.



*Figure 4.2: The NQ4 AI Gen2 Processor.*

### 4.2.3 4K AI Upscaling

This feature utilizes the advanced AI processor to upscale content to 4K resolution, ensuring sharp and smooth picture quality regardless of the original content's resolution.



*Figure 4.3: 4K AI Upscaling in action.*

## 4.3 Picture Settings

### 4.3.1 Quantum Matrix Technology Core

This technology precisely controls Mini LEDs to create concentrated zones behind the screen, resulting in fine contrast and enhanced brightness for vivid picture quality.

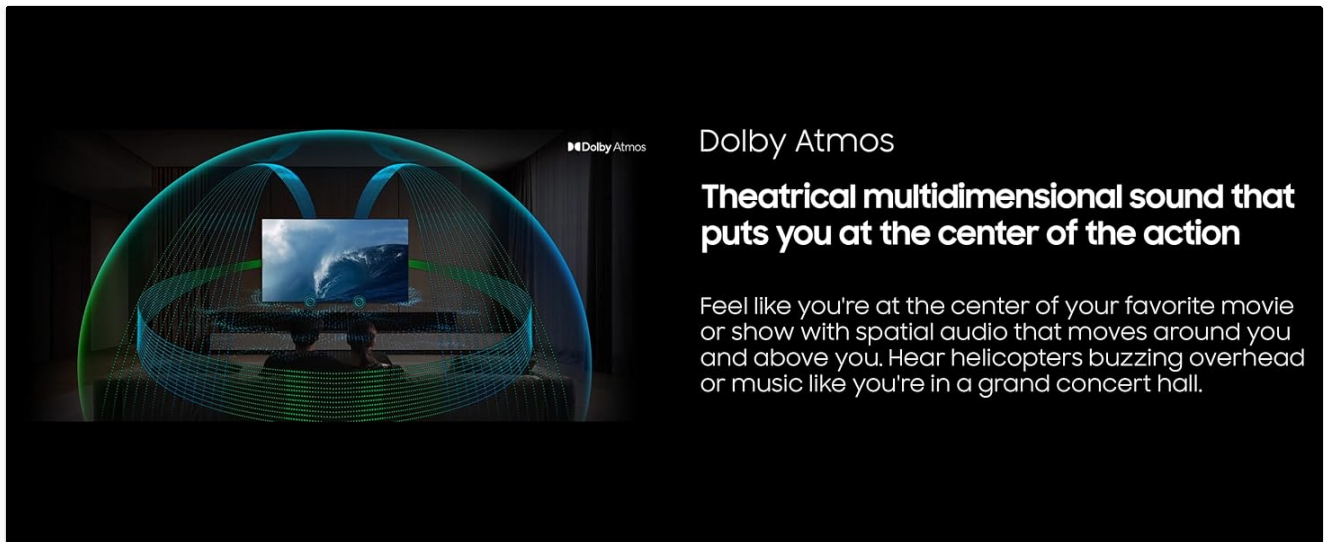


Figure 4.4: Quantum Matrix Technology Core.

### 4.3.2 Auto HDR Remastering

This feature intelligently transforms Standard Dynamic Range (SDR) content to HDR-like quality, providing brighter highlights, more vibrant colors, and clearer details.



3.4K 144Hz is only available with PC connected games that support such specifications (PC graphic card required). Performance may vary.

Motion Xcelerator 144Hz

### Brings smooth motion to sports and tear-free gaming

Play your favorite video games and enjoy sports with exceptional motion clarity with minimal lag or blur. You'll get consistently crisp visuals and ultra-smooth performance at top speeds, so your picture stays seamless throughout all the non-stop action. With dynamic refresh technology, it supports VRR games at up to 4K 144Hz<sup>3</sup>, providing incredible performance for your favorite games

Figure 4.5: Auto HDR Remastering.

### 4.3.3 Color Booster Pro

Color Booster Pro uses AI to analyze each scene and enhance hues, resulting in a world of vibrant and dynamic colors for an improved viewing experience.



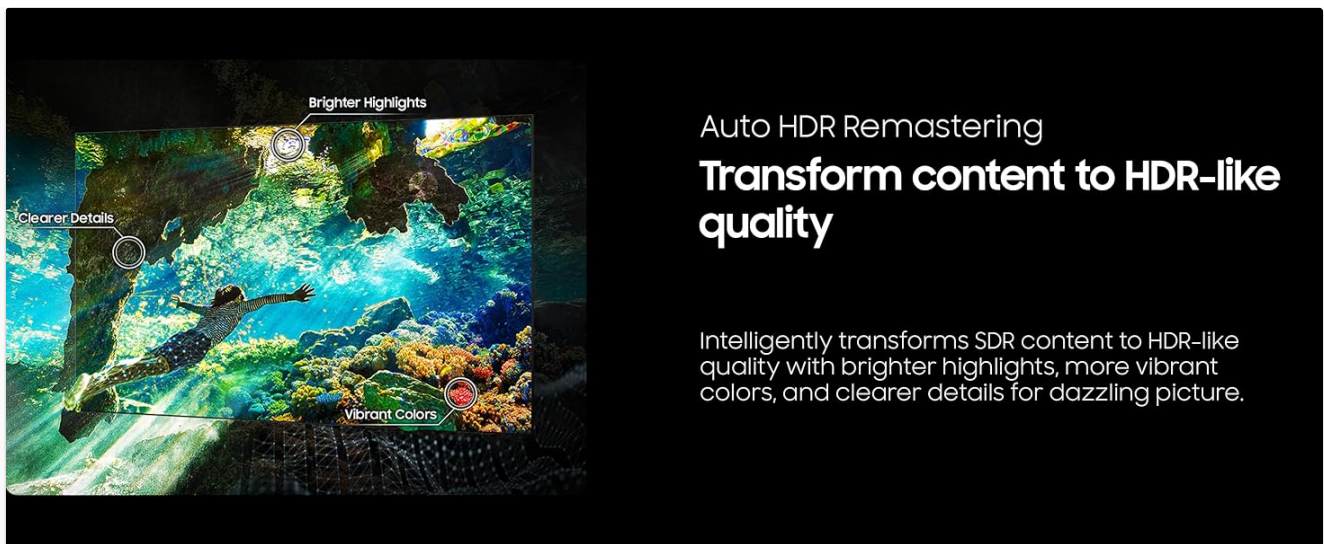


Figure 4.6: Color Booster Pro effect.

## 4.4 Sound Settings

### 4.4.1 Dolby Atmos

Experience immersive, multi-dimensional sound with Dolby Atmos. Built-in top-channel speakers create spatial audio, allowing sound elements to move around and above you, enhancing clarity and immersion.

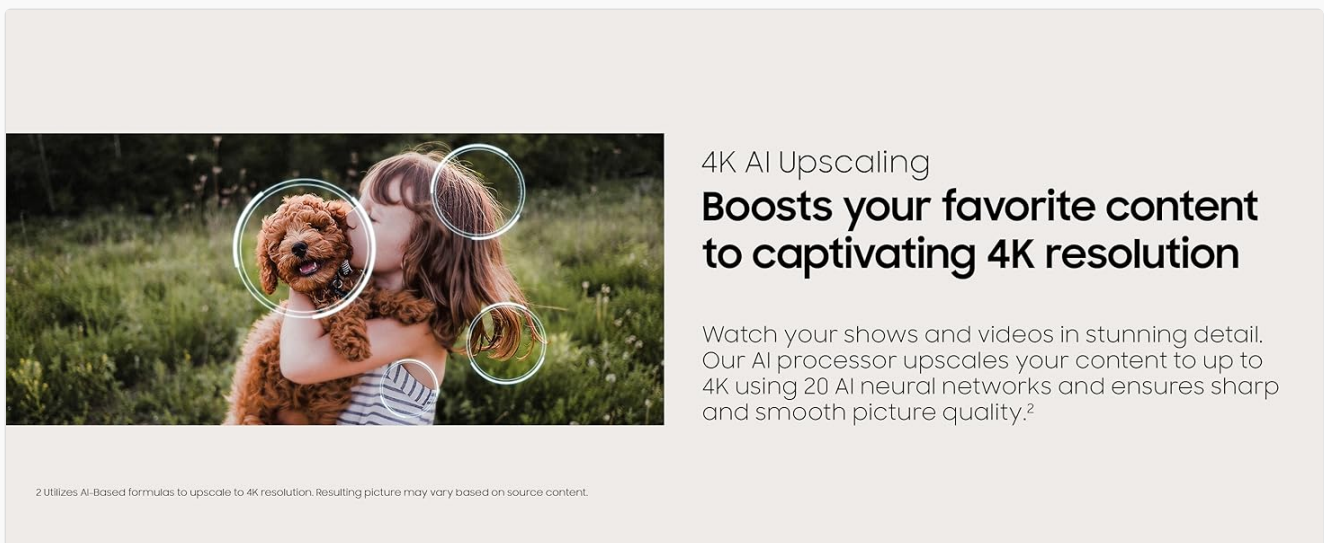


Figure 4.7: Dolby Atmos sound experience.

### 4.4.2 Active Voice Amplifier Pro and Adaptive Sound Pro

These features work together to tailor sound to your space and content. The AI processor identifies sounds, optimizes audio, and amplifies dialogue based on your room's acoustics and what you are watching, ensuring clear and balanced audio.



### Color Booster Pro

## A world of vibrant colors enhanced by AI

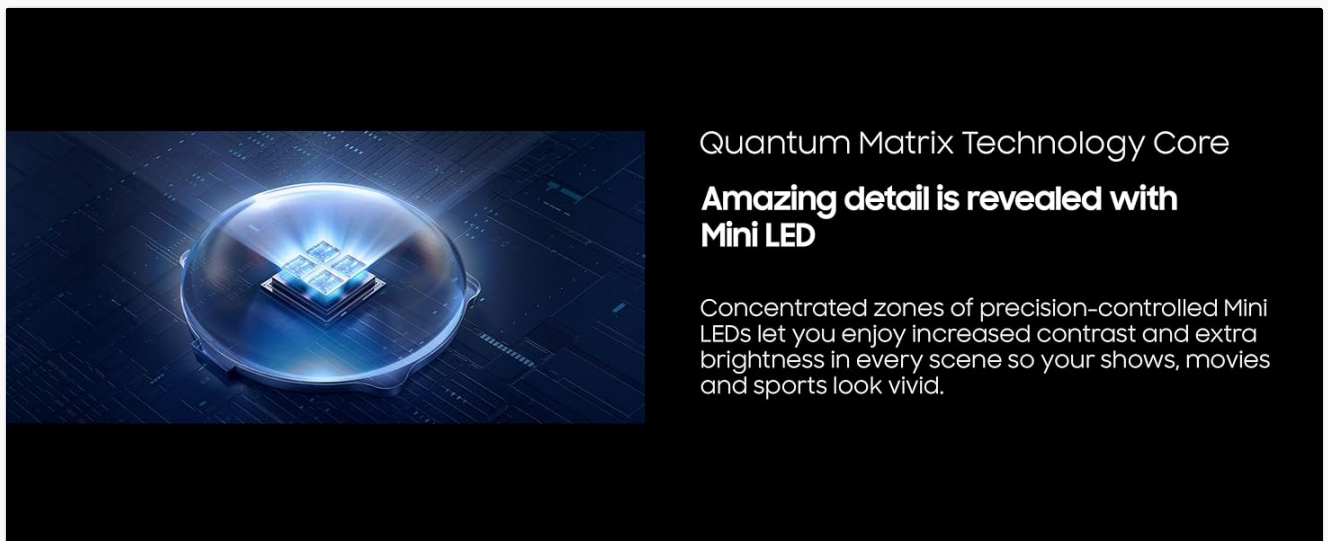
Experience vibrant and dynamic colors as AI analyzes each scene and enhances the hues for a more vibrant viewing experience.<sup>2</sup>

Figure 4.8: Active Voice Amplifier Pro and Adaptive Sound Pro.

## 4.5 Gaming Features

### 4.5.1 Motion Xcelerator 144Hz

Motion Xcelerator 144Hz provides exceptional motion clarity for video games and sports, minimizing lag and blur. It delivers consistently crisp visuals and ultra-smooth performance at high speeds. With dynamic refresh technology, it supports VRR games at up to 4K 144Hz.



### Quantum Matrix Technology Core

## Amazing detail is revealed with Mini LED

Concentrated zones of precision-controlled Mini LEDs let you enjoy increased contrast and extra brightness in every scene so your shows, movies and sports look vivid.

Figure 4.9: Motion Xcelerator 144Hz for gaming.

## 5. MAINTENANCE

### 5.1 Cleaning the TV

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

### 5.2 Software Updates

Ensure your TV's software is up to date for optimal performance and access to the latest features. You can check for updates through the TV's settings menu (typically under 'Support' or 'Software Update'). The TV can also be set



to update automatically when connected to the internet.

## 6. TROUBLESHOOTING

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

- **No Power:** Check if the power cable is securely connected to both the TV and the wall outlet. Test the outlet with another device.
- **No Picture/Sound:** Verify the correct input source is selected. Check all cable connections (HDMI, antenna). Restart connected devices.
- **Remote Control Not Working:** Ensure the remote's battery is charged (for SolarCell remote, expose to light for charging) or replace batteries if applicable. Point the remote directly at the TV.
- **Network Connection Issues:** Restart your router and modem. Reconnect the TV to your Wi-Fi network through the settings menu.
- **Picture Quality Issues:** Adjust picture settings (brightness, contrast, sharpness). Ensure the content source is high quality.

For more specific issues or advanced troubleshooting, consult the comprehensive e-Manual accessible through your TV's settings or visit the official Samsung support website.

## 7. SPECIFICATIONS

Feature	Specification
Brand	Samsung
Model Number	QN80F (E1SAMQN55QN80F)
Screen Size	54.6 Inches (Standing screen display size)
Display Technology	Neo QLED
Resolution	4K
Refresh Rate	120 Hz (Motion Xcelerator 144Hz)
Processor	NQ4 AI Gen2 Processor
Special Features	Motion Xcelerator 144Hz, NQ4 AI Gen2 Processor, Quantum Matrix Technology Core, Vision AI, 4K AI Upscaling, Dolby Atmos, Auto HDR Remastering, Color Booster Pro, Active Voice Amplifier Pro, Adaptive Sound Pro
Connectivity Technology	Bluetooth, HDMI, Wi-Fi
Aspect Ratio	16:9

Product Dimensions (D x W x H)	9.7 x 48.3 x 30.1 inches
Item Weight	49.6 pounds
Date First Available	June 16, 2025

## 8. WARRANTY AND SUPPORT

Your Samsung QN80F Smart TV comes with a Limited Protection plan. Additionally, this bundle includes a CPS 1 Year Extended Protection Plan, providing extended coverage beyond the standard manufacturer's warranty.

For warranty claims, technical support, or service requests, please refer to the documentation provided with your product or visit the official Samsung support website. Ensure you have your model number (QN80F) and serial number ready when contacting support.

For further assistance, you may also consult the *Deco Gear Television Home Theater Essentials: Beginner's Guide* for general setup and troubleshooting tips.

