FWD-98X90L

98" BRAVIA 4K HDR Full Array
LED Display with Google TV,
including 3 years PrimeSupport

Overview

Great for sports & fast-paced action with bright, vivid scenes. This is the Sony BRAVIA X90L Full Array LED Display

Our Cognitive Processor XR understands how humans see and hear in real-life. For example, it recognises that you will be focusing on the player with the ball, and that the sound of the crowd should roar from all directions. Scenes are then recreated in your living room that are so realistic, you can see them unfold in front of your eyes and hear the action all around you.

Full Array LED breathes brightness and contrast into every picture. No more details overwhelmed by shadow or lost in blown-out highlights - just breath-taking contrast, colour, and depth - even when watching in daylight!

High-speed contents are smooth, clear, and blur-free, thanks to our XR Motion Clarity technology.

Our Acoustic Multi Audio technology recreates sound that appears to come from its original sound source, so you'll hear as a car races across the horizon or the sound of a cheering crowd from the sides, and feel closer to the atmosphere inside the stadium.

You can even take your set-up to the next level with the Acoustic Center Sync feature and a compatible Sony soundbar.

The smooth, aluminium Seamless Edge Bezel will harmonise with any interior, while fixed stand will ensure stability of the TV.

Our new dedicated Gaming Menu allows you to optimise your gaming performance - quickly. It includes Motion Blur Reduction, Black Equaliser, Crosshair (available in six different styles), and Custom Screen, which allows you to maximise your view when you need to see more detail in every corner of a game and minimise it when you need your eyes to focus on the enemy with laser vision!

You'll access 700,000+ movies and TV episodes from across your streaming services on this Google TV, and everything is organised into topics and genres to suit your personal interests.

You can even save up to 32% more energy with our new BRAVIA range! Our new Eco Dashboard puts all of your eco settings in one place that's intuitive and user-friendly, so you can save energy without hassle or jargon.[1]

BRAVIA CAM is compatible, inviting you to enjoy video chats on the big screen, and more.

Crunchyroll - the largest anime streaming service in the world – is included on the X90L too. With a vast library of anime, manga, and other original content, movies and shows are translated and subtitled or dubbed, so you can enjoy in a variety of languages.

PrimeSupport: Our professional service package

You enjoy all the fantastic picture & sound quality of our consumer TV range, combined with the added peace of mind of our PrimeSupport Professional Service package and after sales

support which includes:
- Access to our Elite helpdesk for integrator-focused, knowledgable technical support
- Advanced Exchange of any faulty products, with technical assistance for swap & install on premise, wherever possible
-3 years standard cover , with option to extend by additional 2 years.

[1]Default setting versus most energy efficient setting using ECO Dashboard. Consumption difference measured by 85X95L, percentage may differ by model

Features

Amazing brightness. Piercing contrast.
Vivid. Bright. Crisp. See breathtakingly beautiful pictures full of realistic depth on our Full Array LED screen powered by Cognitive Processor XR™

Intense contrast,feel the depth
Cognitive Processor XR™ controls the backlight of our Full Array LED in zones for ultra realistic contrast in bright and dark areas simultaneously.

Contrast intensified.Depth amplified.
XR Contrast Booster precisely balances light across the screen, adjusting brightness for higher peaks in glare and deeper blacks in shadow. Peak brightness is higher than ever for sublime depth and detail.

Extended colour volume, now see every shade and hue
Over a billion colours reproduced with the subtle differences seen in the real world. Powered by our Cognitive Processor XR™, XR Triluminos Pro™ with a wide colour spectrum delivers natural shades in every detail.

Everything upscaled close to 4K quality
Whatever the content or source, images are upscaled close to 4K. XR 4K Upscaling accesses a vast database to intelligently recreate lost texture and detail.[1]

Less noise. Less blur.
More clarity in every picture.
XR Clear Image reduces noise utilising zone division and dynamic frame analysis, and minimises blur.

Intelligent motion processing for fast-moving, blur-free scenes
By analysing motion across several frames, Cognitive Processor XR™ with XR Motion Clarity™ ensures fast-moving sports and action-packed movies stay smooth, bright and clear.

Synchronised. Sound and picture harmony.
Hear sound straight from the screen, perfectly matching the action. Cognitive Processor XR™ turns any sound immersive with more precise sound position.

What you hear matches what you see
With Acoustic Multi-Audio™, it feels as though sound is coming from the right place in the scene, precisely matching visuals. Far more immersive than conventional TVs where sound comes from beneath the screen.

What you want to watch all in one place
Browse 700,000+ movies and TV episodes from across your streaming services, all in one place and organised into topics and genres based on what interests you.[2]

Just say what you want to see –
Hands-free Voice Search
Find favourites faster with voice search. Jump right to a show or movie just by saying it or try browsing with a voice search like "find action movies". Just say "Ok Google" to get started.

Auto HDR Tone Mapping
Auto HDR Tone Mapping instantly optimises HDR settings during your PS5™ initial setup. Even in dark shadow and bright highlights, you'll see fine details and true colours.

Auto Genre Picture Mode
BRAVIA™ automatically switches into Game Mode with PS5™ to minimise lag and maximise responsiveness. It switches back to Standard Mode when watching movies for more expressive scenes.[3]

Game Menu - One place for all your game settings
Never has it been easier to fine-tune your game status, settings and assist functions. All the essentials are at your fingertips for ease and comfort.[4]

Designed slim. Machined in metal.
Sleek, seamless and sophisticated. But the real beauty of this TV is how it focuses you on what's important – the picture.[5]

One Slate. Minimalist. Immersive.
Our minimalist One Slate design fuses screen and bezel into a single slate, minimising noise and maximising your viewing experience. Seamless Edge, available for the first time in this class of BRAVIA™, gives the TV an extremely slim, sophisticated look.[5]

All your eco in one place
The Eco Dashboard keeps all eco-related settings in one place, making it easy to change them individually or in one go.

Greater peace of Mind
There's the added reassurance of our 3 Years PrimeSupport Professional service package as standard, with access to an elite EU-wide helpdesk for techincal support & advanced product exchange handled by local partner, on premise where possible. You can also choose to extend your support for an additional 2 years.

Notes

[1]Upscaled, simulated and enhanced 4K images will vary based on source content.

[2]Some apps, contents and/or features may not be available in all countries. Subject to availability.

User must connect to a Google account to use certain advertised features.

Google TV is the name of this device's software experience and a trademark of Google LLC. Google, YouTube, Chromecast built-in, Google Meet, and other marks are trademarks of Google LLC.

[3]This function works when Auto Picture Mode is ON.

[4]Some features will be available via a future firmware update. Available functions may vary depending on model, region, or country.

[5]Actual look may differ depending on TV size.

Specifications

Common Item	
Model Year	2023

TV System	
TV System (Analog)	B/G,D/K
Tuner Channel Coverage (Analog)	45.25MHz-863.25MHz(Depend on country selection)
TV System (Digital Terrestrial)	DVB-T/T2
Tuner Channel Coverage (Digital	VHF/UHF(Depend on country

Terrestrial)	selection)
TV System (Digital Cable)	DVB-C
Tuner Channel Coverage (Digital Cable)	VHF/UHF/cable(Depend on country selection)
TV System (Digital Sat)	DVB-S/S2
Tuner Channel Coverage (Digital Sat)	Intermediate Frequency 950-2150MHz
Number of Tuners (Terrestrial/Cable)	2(Digital)/1(Analog)
Number of Tuners (Sat)	2
Color System	PAL/SECAM/NTSC3.58(Video only)/NTSC4.43(Video only)
CI+	Yes
Color Space	sRGB/BT709,BT2020,AdobeRGB,DCI
Operating System	Android 10
On-board Storage (GB)	32GB

Display Features

Display type	LCD
Backlight dimming type	Local Dimming

Display Specs

Screen Size (inch, measured diagonally)	98"(97.5")
Screen Size for WEB(diagonal, cm, integer or 1st decimal)	248 cm
Backlight type	Direct(Full Array LED)
Display resolution (H x V, pixels)	3840 x 2160
Viewing Angle (Right/Left)	178(89/89) degree
Viewing Angle (Up/Down)	178(89/89) degree
Display Resolution	QFHD
Aspect Ratio	16:9

Video Features

Object-based Super Resolution	XR Super Resolution
Peak Luminance	XR Contrast Booster 10
TRILUMINOS	XR Triluminos Pro
HDR Remaster	XR HDR remaster
Smoothing	XR Smoothing
Features for PlayStation®5 Auto HDR Tone Mapping	Yes
Features for PlayStation®5 Auto Genre Picture Mode	Yes
XR Clear Image	Yes
Precision Color Mapping	- (Integrated into XR Triluminos Pro)
Face Area Detection	Yes
	Vivid,Standard,Cinema,IMAX Enhanced Game Graphics Photo Custom Dolby

Picture modes	Enhanced,Game,Graphics,Photo,Custom,Dolby Vision (Vivid/Bright/Dark),Netflix calibrated, BRAVIA CORE calibrated
Auto Wide	Yes
Wide Mode	Wide zoom/Normal/Full/Zoom/14:9,Normal/Full1/Full2 for PC
4:3 Default	Yes
Video Processing	XR 4K Upscaling
Motion enhancer	XR Motion Clarity, Auto mode
Blinking Type	Line Blinking
24p True Cinema	Yes
Live Colour™ Technology	Yes
PhotoTV HD / BRAVIA 照片秀 for China	Yes
CineMotion/Film Mode/Cinema Drive	Yes
4K Processor	Cognitive Processor XR

HDR (High Dynamic Range) compatiblity	Yes(HDR10,HLG,Dolby Vision)
Panel Refresh Rate (Native Hertz)	100/120Hz
Dual database processing	Yes
Dynamic Contrast Enhancer	Yes

Audio Specs

Channel	2ch
Audio Power Output	10W + 10W + 10W + 10W
Speaker Position	Down Firing + Side Back
Bass/Treble/Balance	Balance
Speaker Type	Acoustic Multi-Audio
Speaker Configuration	Full Range (Bass Reflex) x 2, Tweeter x 2
	Two channel linear PCM: 48kHz

Digital audio out (Optical) format	16bits, Dolby Audio, DTS(Pass through mode only)

Audio Features

Acoustic Center Sync	Yes (S-CENTER SPEAKER IN)
Ready for 360 Spatial Sound Personalizer	Y(with WLA-NS7)
Vertical Surround Engine	Vertical Surround Engine
Acoustic Auto Calibration	Room & User Position Compensation
Speaker Type-2	Sound Positioning Tweeter, X-Balanced Speaker
Clear Phase	Yes
S-Master	S-Master Digital Amplifier
Auto Surround	Yes
DTS audio format support	DTS Digital Surround
Sound modes	Standard, Dialog, Cinema, Music, Sports, Dolby Audio

Simulated surround sound	S-Force Front Surround
Dolby audio format support	Dolby Audio, Dolby Atmos
Voice Zoom	Voice Zoom 2
HDMI Audio Return Channel(ARC)	Yes (eARC/ARC)
Advanced Auto Volume	Yes
Auto Mute (on no signal)	Yes
HDMI input Audio format	5.1 channel linear PCM: 32/44.1/48/88.2/96/176.4/192kHz 16/20/24bits, Dolby Audio, Dolby Atmos, DTS
ARC output format	Two channel linear PCM: 48kHz 16bits, Dolby Audio, Dolby Atmos, DTS(Pass through mode only)

Network Features

Control Menu	Yes
ECO Dashboard	Yes

Apple AirPlay	Yes
Apple HomeKit	Yes
Home Network Feature	Home Network Client, Home Network Rendere
Wi-Fi Direct	Yes
Wi-Fi Certified	Yes
Screen mirroring(Miracast™)	Yes (only for B2B purpose)
Video & TV SideView (iOS/Android)	Yes
Related Info	Yes (UK, Ireland, Netherlands, Belgium, Luxem
Wi-Fi Standard	a/b/g/n/ac
Wi-Fi Frequency	2.4GHz/5GHz(for Wi-Fi Direct: 2.4GHz Only)
Internet Browser	Yes
Codec for Home Network	MPEG1:MPEG1/MPEG2PS:MPEG2/MPEG2TS(H S):AVC,MPEG4,HEVC/AVI:Xvid,MotionJpeg/ASF nail only)
Wireless LAN	Integrated

Convenience Features

UVC/UAC

support	Yes
TalkBack	Yes
Variable Refresh Rate (VRR)	Yes (for HDMI3/4)
Auto Low Latency Mode (ALLM)	Yes (for HDMI3/4)
Features specified in HDMI2.1	4K120/eARC/VRR/ALLM
Built-in Mic switch	Yes(Center)
X-Protection PRO	Y (with Lightning, Surge, Humidity Protection)
Electronic Program Guide (EPG)	Yes
USB HDD Recording	Yes(1Rec)(Except Italy)
USB playback codecs	MPEG1:MPEG1/MPEG2PS:MPEG2/MPEG2TS(HDV,AVC

Built-in Mic	Yes
Screen Reader	Yes
Audio Description	Yes
Text Magnification	Yes
Accessibility Shortcut	Yes
Switch Access	Yes
Auto Picture Mode	Yes
Text Input Language	ARA / BUL / CAT / HRV / CES / DAN / DUT / ENG / EST
Chromecast built-in	Yes
Voice Search	Yes*1 *1 Hands Free feature(Built-in Mic) availability depen
Application Store	Yes (Google Play Store)
BRAVIA Sync	

(including HDMI-CEC)	Yes
i-Manual	Yes
Parental Control	Yes
Channel Block (with password)	Digital
On Screen Clock	Yes
Sleep Timer	Yes
On/Off Timer	Yes
USB drive format support	Yes (Supported File System: FAT16/FAT32/exFAT/NTF
Display Language	AFR,AMH,ARA,ASM,AZE,BEL,BUL,BEN,BOS,CAT,CZE,D

Sensing Features

Sensor	Light

PowerEco and Energy saving

Power Requirements (voltage)	220 V - 240 V AC
Power Requirements (frequency)	50 Hz
Power Consumption (in Standby)	0.50 W
Power consumption(Networked Standby)	2.00W(Wi-Fi) / 2.00W(LAN) / 0.50W(CEC)
SORPLAS	Yes
EEA SDR RANK	E
ECO Friendly	Yes
On Mode Power Consumption (Lot 5)	154 kWh/1000h
Mercury content(mg)	0.0
Lead Content	Yes
Dynamic Backlight Control	Yes
Power Saving Mode / Back Light Off Mode	Yes

General Features

Smart TV	Google TV
BRAVIA CORE Calibrated mode	Yes
Auto Calibration with CalMAN	Yes
Netflix Calibrated mode	Yes
IMAX Certified Model	Yes
Closed Captions (Digital)	Subtitle
Demo Mode	Yes(e-POP only)

Broadcast Features

Teletext	Yes
Teletext number of pages	1000 pages

Design Features

Stand Color	Black
Bezel Design	Aluminum Bezel
Frame color	Black

Stand Design	Aluminum Slim Wedged Stand

Inputs and Outputs

HDMI Signal	4096x2160p(24,50,60Hz), 3840x2160p(24,25,30,50,60,100,120Hz)*2 , 1080p(24,30,50,60,100,120Hz), 1080i(50,60Hz), 720p(24,30,50,60Hz), 576p, 480p *2 100Hz and 120Hz is supported by HDMI IN 3 and IN 4
HDCP	HDCP2.3(for HDMI1/2/3/4)
Bluetooth profile support	Version 4.2,HID/HOGP/SPP/A2DP/AVRCP
4K 60P High-Quality formats	HDMI IN1, IN2 ports for 4K(up to 18Gbps) signal, HDMI IN3, IN4 port for 4K(up to 48Gbps) signal
AC Power Input	C18 INLET (BOTTOM)
RF (Terrestrial/Cable) Connection Input(s)	1(Side)

IF (Satellite) Input(s)	2(Side)
Composite Video Input(s)	Hybrid w/S-Center Speaker Input x1(Side, Mini jack)
HDMI inputs total	4(4Side)
Analog Audio Input(s) (Total)	1(Side Analog Conversion)
Digital Audio Output(s)	1(Side)
USB ports	2(Side)
Ethernet inputs	1(Side)
PCMCIA Slot(s)	1(Top)
HDMI PC Input Format	640x480(31.5kHz,60Hz), 800x600(37.9kHz,60Hz), 1024x768(48.4kHz,60Hz), 1280x1024(64.0kHz,60Hz), 1152x864(67.5kHz,75Hz), 1600x900(55.9kHz,60Hz), 1680x1050(65.3kHz,60Hz), 1920x1080(67.5kHz,60Hz), 3840x2160p(30Hz), 3840x2160p(60Hz, 8bits)

Regulation and Standard Compliance

VESA® Hole Spacing Compatible	Yes
VESA® Hole Pitch(W x H)	60.0 x 40.0 cm

Measurements (Approx.)

Dimension of TV without Stand (W x H x D)	Approx. 219.9 x 125.5 x 8.5 cm
TV with Stand (Standard position) (W x H x D)	Approx. 219.9 x 130.5 x 46.5 cm
Dimension of Package Carton (W x H x D)	Approx. 233.4 x 139.6 x 28.5 cm
Stand width (Standard position)	Approx. 153.6 cm
AC Cable Length	2000mm

Weights (Approx.)

Weight of TV without Stand	Approx. 67.2 kg

TV with Stand (Standard position)	Approx. 68.9 kg
Weight of Package Carton(Gross)	Approx. 91 kg

Carton Spec

Max Qty of carton stacking (vertical)	1
Max Qty of carton stacking (horizontal) *only for Shop Front	N/A

Supplied Accessories

Voice Remote Control (Supply)	RMF-TX810U
Remote Control	RMT-TX450E
Batteries	LR03+R03
AC Power Cord Spec	Bundle (C17) (EUROPE) (2pin) (round pins Type F) + Bu (SWISS) (2pin) (round pins Type C)
Operating	

Instructions	EN,FR,ES,NL,DE,PT,IT,SE,DK,FI,NO,PL,CZ,SK,HU,RO,BG
Quick Setup Guide / Supplement CUE (GA)	EN,FR,ES,NL,DE,PT,IT,DK,NO,SE,FI,PL,CZ,SK,HU,RO,BG
Table Top Stand	Separate (Assembly required)

Optional Accessories

Camera Unit (option)	CMU-BC1

PrimeSupport

Included PrimeSupport	3 Years with advanced exchange handled by local partner, on premise where possible. Optional +2 years extension.

Gallery