

Technical Guide

2017 - LCD TV / OLED TV

Model No. LCD-201703
OLED-201707

Ver. 3.0 (Jul-2017)



Lineup and Function

Panasonic®

© Panasonic Corporation 2017

Unauthorized copying and distribution is
a violation of law.

Revision History

Version	Issued/Revised date	Revised content
Ver. 1.0	27th. Mar. 2017	First version
Ver. 2.0	26 th . May. 2017	Add new models (P.5 - P.10) Delete TC-32E400C model because of dropping the lineup
Ver. 3.0	7 th Jul. 2017	Add OLED models (P.5 -10)

INDEX

1.Lineup and Function Comparison

2.Function

HDR / HDR Multi Support

My App

TV Anywhere (Europe) / TV Anytime (Oceania/Asia)

Media Center App

Media Player 2.0

Easy Mirroring

USB HDD Recording

In-House TV Streaming (Only Europe)

IP Home Control (Only Europe and Canada)

1. Lineup and Function Comparison

Lineup and Comparison of the Functions (Oceania/Asia/Middle East/Africa) 1

Model Name		TH-**E 400/410*	TH-**ES 500/630* (except A/Z)	TH-**ES 500A/Z	TH-**EX 600/640/680/ 700* (4K)	TH-**EX 750/770/780* (4K)	TH-65/55EZ 950/1000* (4K OLED)
Main SoC		MT5561	Peaks LD11	MT5581P	MT5811Q	MT5811P	MT5811P
Function	HDR	N	N	N	PQ(HDR10) + HLG	PQ(HDR10) + HLG	PQ(HDR10) + HLG Ultra HD Premium *1
	my Home Screen	N	1.0	1.0	2.0	2.0	2.0
	My App	N	Y	Y	Y	Y	Y
	Info Frame	N	N	N	Y (except -R)	Y (except -R)	Y
	Voice Guidance	N	Y (except -R)	Y	Y (except -R)	Y (except -R)	Y
	3D	N	N	N	N	Y (except -R)	N
	Twin HD Tuner	N	N	N	N	Y (only -A/ -U)	Y (only -U)
	Multi Window	N	Y (except -D/-W)	Y (except -D/-W)	Y (except -D/-W)	Y (except -D/-W)	Y (except -D/-W)
	Media Player	Y	Y	Y	Y (2.0)	Y (2.0)	Y (2.0)
	Touch Pad Remote	N	N	N	N	Y	Y
Networking	DLNA	N	Y	Y	Y	Y	Y
	Swipe & Share	N	Y (except -R)	Y	Y (except -R)	Y (except -R)	Y
	Web Browser (without Flash)	N	Y	Y	Y	Y	Y
	Easy Mirroring	N	Y	Y	Y	Y	Y

(*1) Ultra HD Premium™ logo is a trademark of the UHD Alliance, Inc.

Lineup and Comparison of the Functions (Oceania/Asia/Middle East/Africa) 2

Model Name		TH-**E 400/410*	TH-**ES 500/630* (except A/Z)	TH-**ES 500A/Z	TH-**EX 600/640/680/ 700/* (4K)	TH-**EX 750/770/780* (4K)	TH-65/55EZ 950/1000* (4K OLED)
Main SoC		MT5561	Peaks LD11	MT5581P	MT5811Q	MT5811P	MT5811P
Terminal	Bluetooth (Not Audio, Only Keyboard/Mouse)	N	Y (only -D) Wireless Media (only -D)	N	N	Y (Not Audio) (except -R)	Y (Not Audio)
	Headphones	N	N	Y	Y	Y	Y
	Analog Audio out	Y	Y	N	N	N	N
	WiFi built-in / LAN port	N	Y	Y	Y	Y	Y
	HDMI (FHD/4K)	2+0, 1+0 (only 32D400D)	3+0	3+0	0+3	0+4	0+4
	USB2.0 /3.0	1+0	2+0	2+0	1+1(DX600) 2+1(DX640)	2+1	2+1
	SD Card	N	N	N	N	N	N
Note							(only EZ1000) Speaker is separated

The detail lineup and specification are different in each countries.

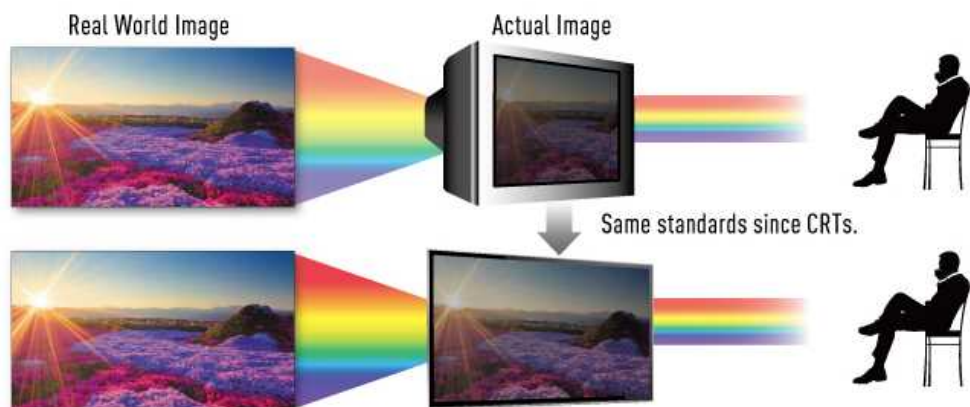
2. Function

Technical Information

The expressible bright and dark parts are expanded to achieve more natural images.

What's HDR?

Before: Standard Dynamic Range



Now: High Dynamic Range



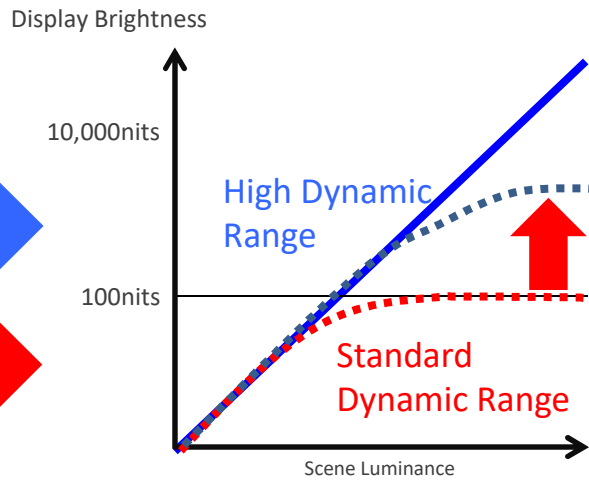
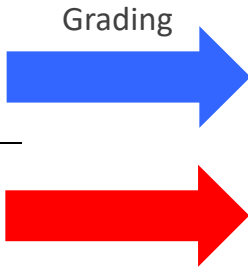
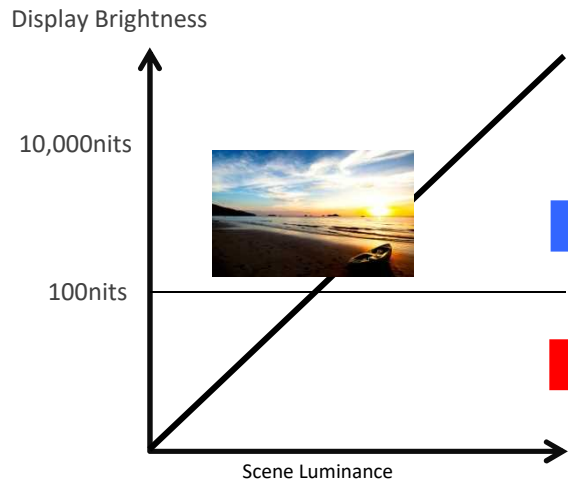
	Resolution	Colour Space	Brightness
SDR	SDTV/ HDTV	BT.709	100- 300nits
HDR	4K Ultra HD	BT.2020	1000nits *LCD/UHD Premium

HDR (High Dynamic Range)

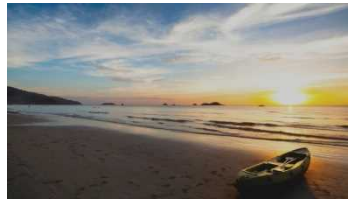
What's High Dynamic Range(HDR)?

The high-brightness data that is recorded when shooting is used directly to faithfully reproduce images in their original brightness.

HDR Compatible :
standard defined by CEA



High Dynamic Range



Standard Dynamic Range

HDR Multi Support

Panasonic TVs support multiple HDR formats, such as HDR10 the standard HDR format for films and UHD Blu-ray discs, and now also Hybrid Log Gamma, the HDR format for broadcast TV developed by the BBC and Japan's NHK. You can be assured of future compatibility.



Standard	Standard		Quality Certification	
	Hybrid Log Gamma (HLG) New Compatible	Perceptual Quantizer (PQ)		UHD Premium Only DX900 and 65/55EZ*** compatible
		HDR10 Compatible	Dolby Vision Not compatible	
	ITU-R BT2100	SMPTE ST 2084		
Simple Explanation	For Broadcasting	Most Popular	Advanced but limited devices and services are available.	Premium UHD Experience
Main Standardizing Organization	BBC(UK), NHK(JP)	BDA (Blu-ray Disk Association)	Dolby	UHD Alliance -Hollywood Studios -Content Distributors -Hardware Manufacturer
Remarks			-Blu-ray players & titles are not available.(*) -streaming content is also available by HDR10.	-Quality certification (not standard) -Requirement on display spec: LCD 1000nit / OLED 450 nit.

*As of December 2016.

my Home Screen 2.0 (4K model)

Quick, Intuitive Access to Just the Content You Want

"my Home Screen" will be renewed, as a single gateway to all the broadcasting channels, apps and connected devices. A new Firefox OS-based home screen makes it easy to access the content you want with intuitive operation.

Simple, Intuitive New GUI

[New Home]

Content Search Live TV Deck Apps Deck Devices Deck

Add Favorites to the Home with "Pin to Home"

You can "pin" your favorite TV channels, apps and devices to your Home with the "my" button on the Touch Pad Remote.



(* You can do also by option button and select menu with normal Remote.

You can access easily from your Home.

my Home Screen 2.0 Details – Default Decks and the Others (4K model)


Live TV Deck

Switch to a program being broadcast. You can also add frequently watched TV stations to your home.

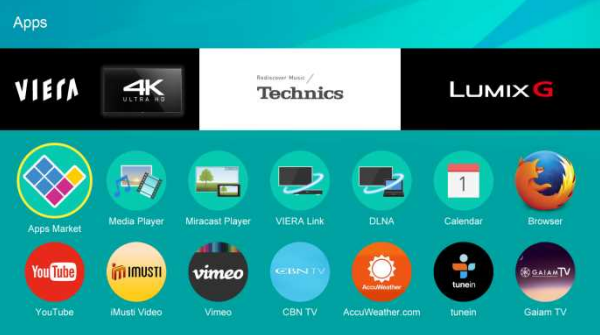
Devices Deck

Display devices connected to the TV by wire or wireless. Easily access the device you want to use.

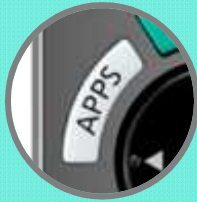


Apps Deck

Switch to an Apps Deck. Enjoy a wide range of apps, such as games, VOD and SNS.

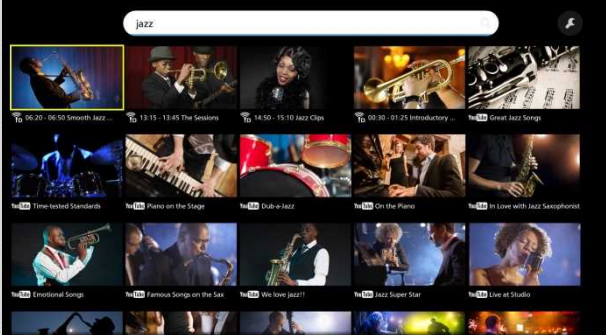


You can also move with the "APPS" button on the remote control.



Content Search

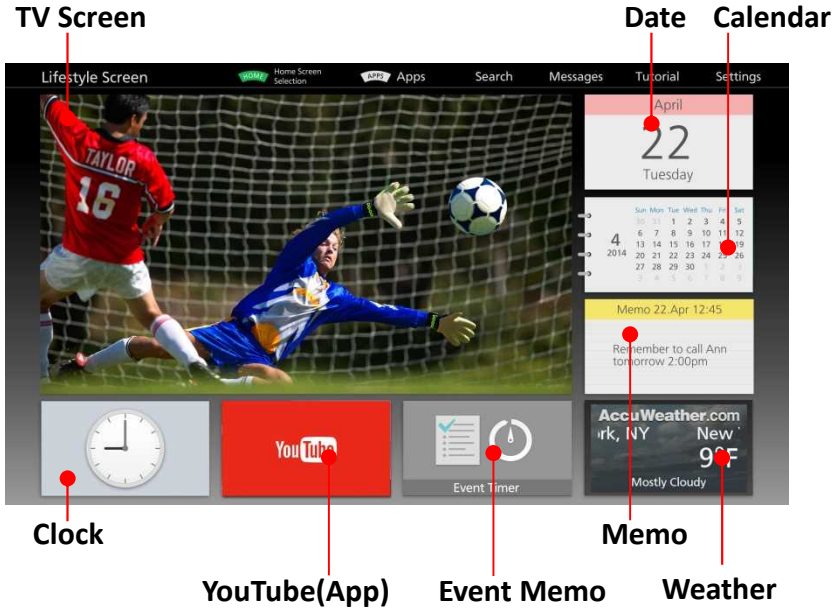
Newly developed search function enables cross search thru Internet Video and Other Devices.



my Home Screen (FHD model)

You can personalize the home screen with your favorite apps and content. “my Home Screen” makes it fast and easy to access whatever you want.

Simple, Customisable GUI



*Synching with Google Calendar is also possible.

Preset Home Screens

Choose your own home screen from 2 formats or an ordinary TV screen.



*Preset Home Screens may depend on the country/area.

Creating Original Screen

Freely arrange apps to create an original home screen.



Easily access your favourites from your Home.

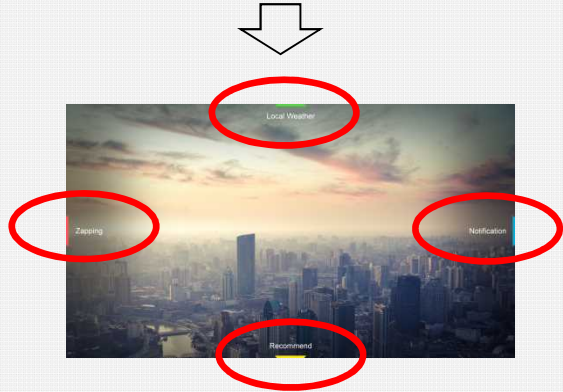
Quick Access to Useful Information

As soon as the TV turns on, information that is useful to you is displayed. You get quick, easy access to the weather, a clock, recommended TV program listings, etc.

The pictures are just for reference.
It might be differ from the actual menu.

Easy Access

Continue pressing the "HOME" button



Press the direction button

TV Program Listing & Web Clips

Clock / Weather Information



Content Recommendation (my Stream)

Notification Center

Info Frame Details

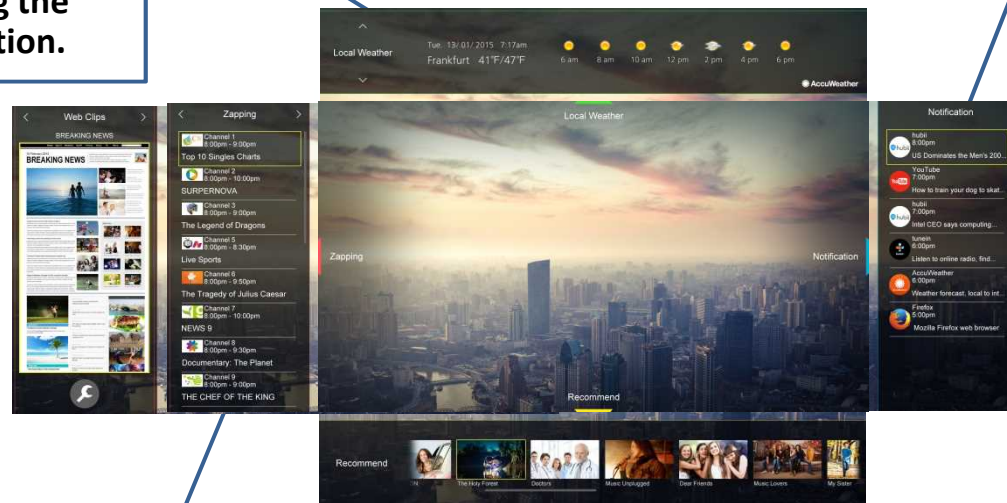
Quick Access to Useful Information

Clock/Weather

The time and weekly weather are displayed by simply registering the user's home location.

Notification Center

Notification messages delivered from Firefox apps and TV native apps are listed.



Web Clipping

Cut Our your favorite part of Website, in any portion to check latest info.

TV Program Listing

A listing of programs other than the one being watched is displayed.

Content Recommendation (my Stream)

The user's recommended programs are automatically displayed according to the viewing history.

The pictures are just for reference. It might be differ from the actual menu.

My App

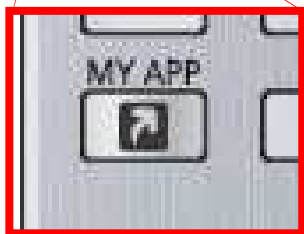
Quickly access registered MY APP applications with a single remote control button.
The user can assign only 1 application to “MY APP.”



For example, when YouTube is registered to “MY APP” YouTube application is launched directly by MY APP button from any screen.



The My App badge is added to the icon.

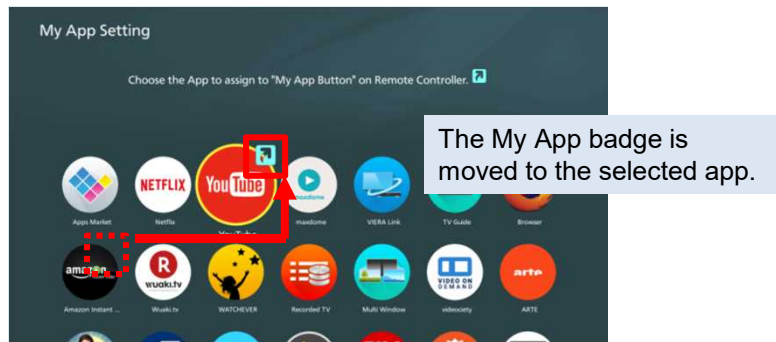
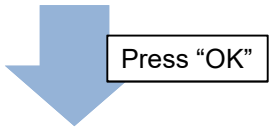
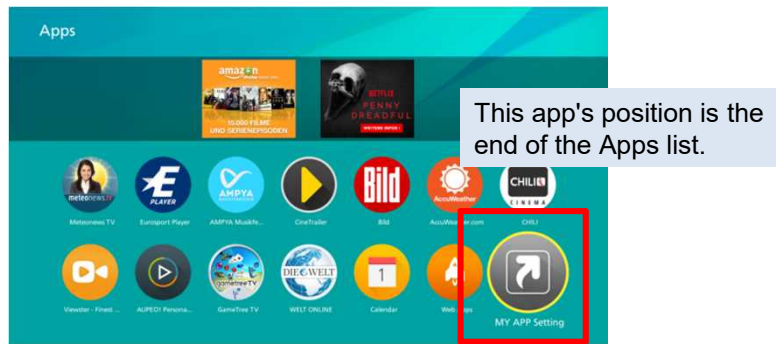


My App

“MY APP” registration is also easy.

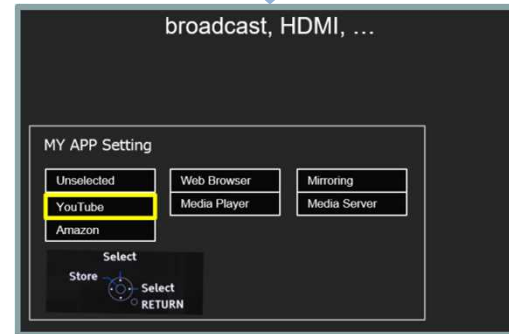
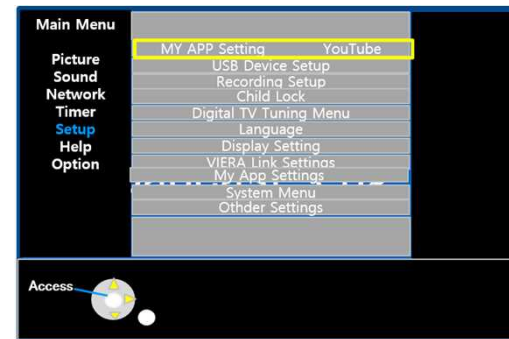
< 4K Models >

Apps > MY APP Setting



< FHD Models > (Except Europe)

Main Menu > Setup > MY APP Setting



If “OK” is pressed while focusing on other App, the selected App is stored for the MY APP key. (This panel just disappears.)

Your own favorite Apps are easily assigned with the My App Setting.

Touch Pad Remote Controller

The new Touch Pad Remote enables intuitive operation using voice and touch control.



Ergonomic Design :
Curved, hand-fitting design
based on ergonomics



“my” Button for Pin to Home

Use the "my" button to "pin" your favorite TV channels, apps and frequently used devices to your Home.

Voice Command List

In case you forget a voice command
 → Say "Help" or press the OPTION button to show the voice commands.

	English	Spanish		English	Spanish
Common Operation	Volume up	Sube volumen	Basic Operation (applied by)	Channel up	Sube canal
	Volume down	Baja volumen		Channel down	Baja canal
	Volume 20	Volumen 20		Channel 1 2 (one two)	Canal 1 2 (uno dos)
	Mute	Silencio		Previous page	Vuelve a la página anterior
	Live TV	TV en directo		Next page	Ir a página siguiente
	Devices	Dispositivos		Scroll up	Desplaza hacia arriba
	Info Frame	Info Frame		Scroll down	Desplaza hacia abajo
	my Home Screen	Mi pantalla de inicio		Scroll right	Desplaza hacia la derecha
	Apps	Aplicaciones		Scroll left	Desplaza hacia la izquierda
	That one OK	confirmar ok		Zoom in	Ampliar
	Go up	arriba		Zoom out	Reducir
	Go down	abajo		Number one / Number two / Number three	número uno / número dos / número tres
	Go right	derecha	Select number ***	Seleccionar número ***	
	Go left	izquierda	Pin to Home	Añadir a Pantalla de Inicio	
	Red button	Botón rojo	Pin to Home number ***	Añadir a Pantalla de Inicio número ***	
	Blue button	Botón azul	Change screen	Cambiar Pantalla	
	Green button	Botón verde	Appli Operation	Add bookmark	Agregar a favoritos
	Yellow button	Botón amarillo	Search Command	Jump to ***	Saltar a ***
	Television power on	encender la televisión		Search for ***	Buscar ***
	Television power off	apagar la televisión		Search the internet for ***	Buscar *** por internet
Help	Ayuda	Search for images of ***		Buscar *** imágenes	
Return	Vuelve	Search for videos of ***		Buscar *** vídeos	
Exit	Cerrar	Search for news of ***		Buscar *** en noticias	
Instructions for Voice Control	Instrucciones Control Voz	Search for (a) map of ***		Buscar *** en mapa	
		Search the TV guide for ***		Buscar *** por guía de televisión	
		Search for *** in recorded TV	Buscar *** por televisión grabado		
		Search YouTube for ***	Buscar *** por YouTube		

Media Player 2.0 (for 4K models)

The Media Player function was revamped for easier use. Each day and month can be displayed, like a smartphone, so desired images and videos can quickly be found.

Easy List View

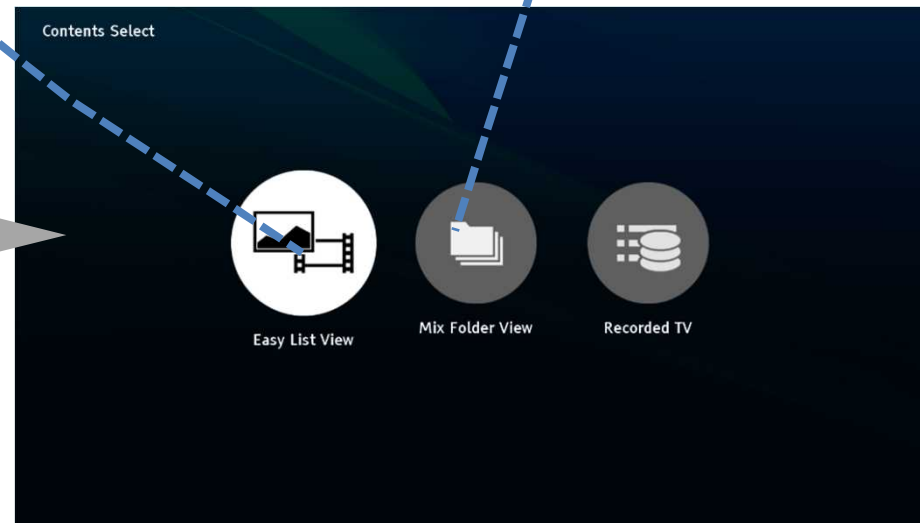
Photo/ Video

Photo /Video integrated as new View

Mix Folder View

Photo/ Video/ Sound

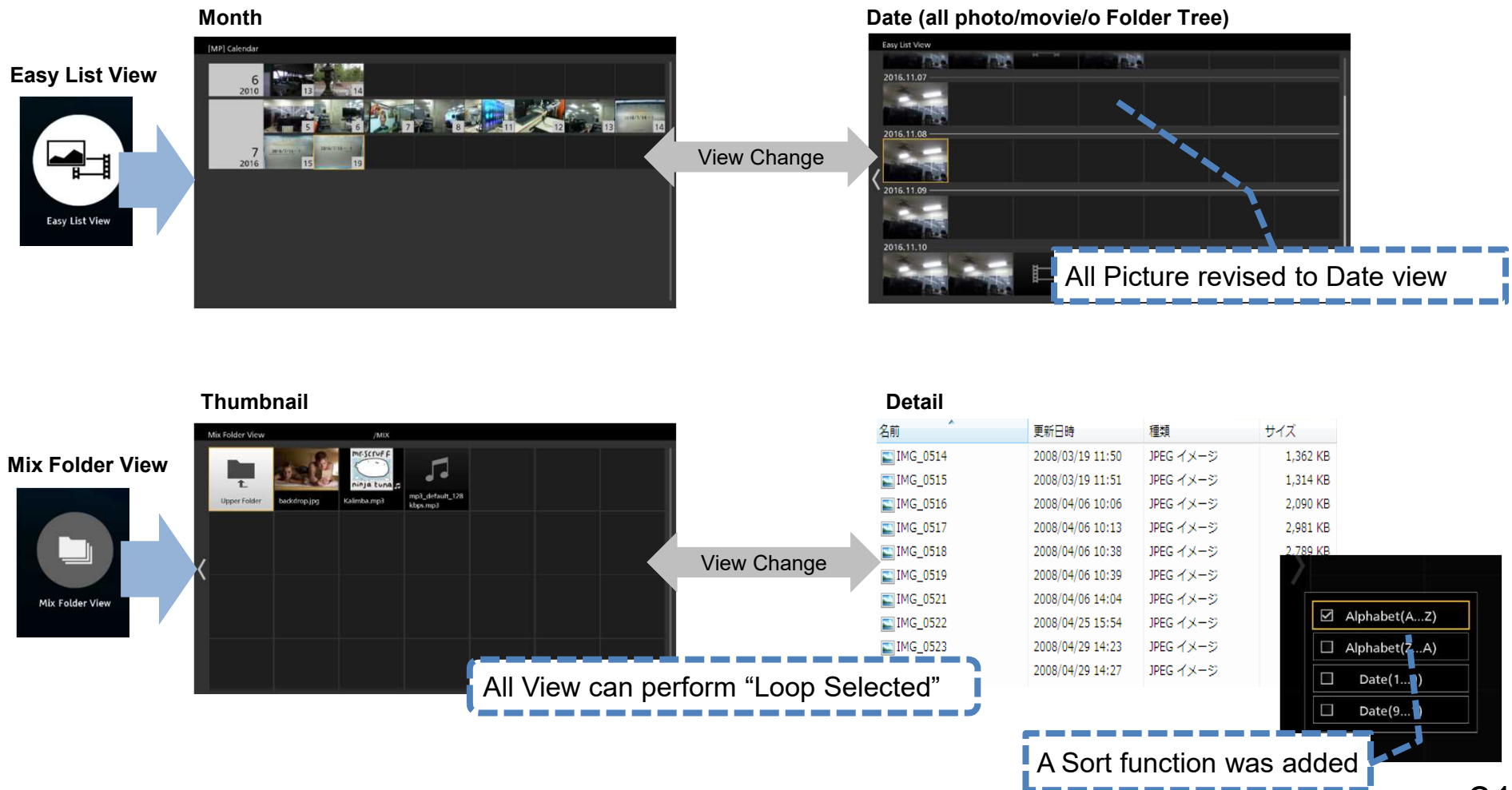
"New Mix Folder View added



Media Player 2.0 (for 4K models)

The Media Player function was revamped for easier use. Each day and month can be displayed, like a smartphone, so desired images and videos can quickly be found.

< Folder Structure >



HEXA BOOST (ES series)

Simply press the HEXA Boost Button on the remote control to enjoy Vivid colour in content such as football, drama, and animation. For example, the football pitch looks more vivid with real-life shades of green and uniforms look as if you were viewing them in their natural colours in an actual, live game.

Easy Operation

Just press the “Hexa Boost” button and choose the content.



Change the setting easily and enjoy vivid and clear images

Compatible Content and Effect

Enables to enjoy stunning picture by focusing on Drama, Animation and Sports



Animation

- Vivid/enrich colors expressly by rising color level (RGB)
- Crisp image by sharpen the edge



Drama

- Rich/clear image by rising color level
- Skin tone is natural by taking the balance of red level



Sports

- Fresh greens by rising green level
- Colorful uniforms by rising color level

Colors are maximized!
Clear and vivid picture

Easy Mirroring

Easily Reproduce What's Showing on Your Smartphone on Your TV Screen

It's now possible to set up a direct Wi-Fi connection between your TV and your smartphone or tablet, so that you can quickly and easily reproduce what's showing on your portable device on your TV's much bigger screen.

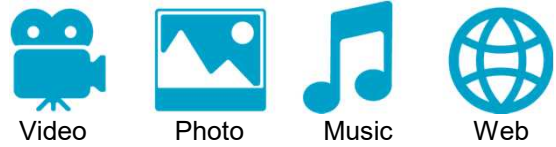
*Compatible with Android™ devices, Ver. 4.2 and above and Miracast certified. *Some models with Ver. 4.0 and 4.1 may work ([iOS does not support.](#))

[\(Note\) The sound can be output from TV speaker only, Sound output \(Optical , HDMI\(ARC\)\) does not support.](#)



Swipe & Share (TV Remote2)

2-Way Operation for Swiping Forward and Back

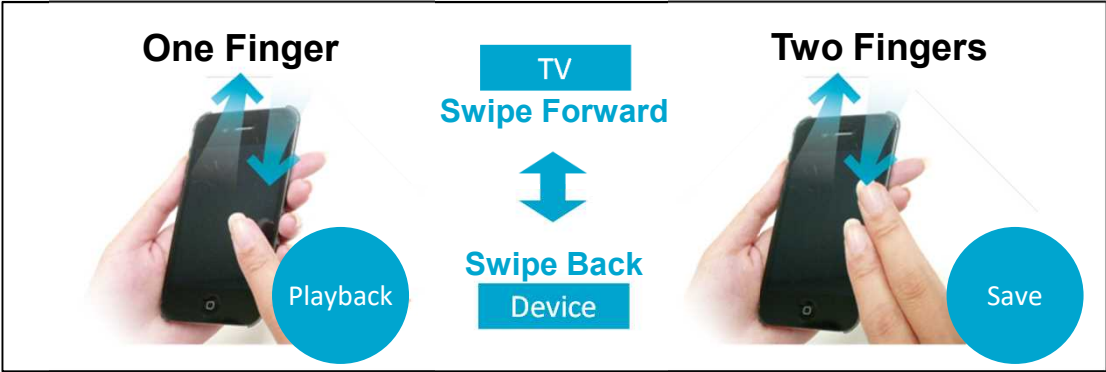


Swipe & Share

Browse & Share



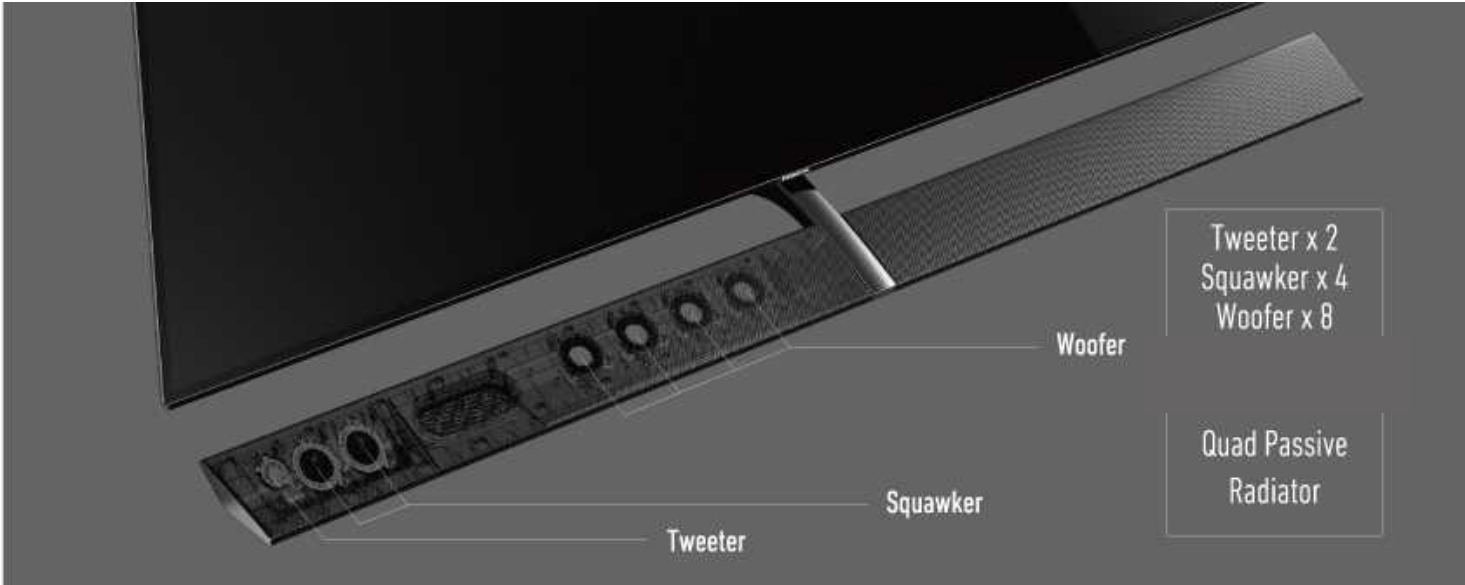
Content can be shared between the TV and a linked device by swiping with one finger. When you want to save something, use two fingers.



Dynamic Blade Speakers (EZ1000)

Equipped with isolated “Blade” shaped speaker system equivalent to Sound Bars for optimal sound quality.

14 Multiple Speaker Units + Quad Passive Radiator

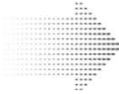


Tweeter x 2
Squawker x 4
Woofer x 8

+

Quad Passive Radiator x 2

Two passive radiators are located in front of and behind the right and left speaker units. This opposing configuration dramatically reduces vibration noise.



Full 80-watt output,
even with a thin profile

+

Powerful bass

EX750 " Switch Design A Contemporary Twist"



With Swivel and Lift functionality, the Panasonic EX750 always offers the perfect viewing angle. So wherever you make yourself comfortable, you'll always have the best seat in the house with our "Switch Design"

EX600/ES630 " Switch Design to Express Yourself"



Wide or narrow, subtle or bold — with four distinct styles in one Flexible Pedestal design, now you can change the look of your TV as often as you remix your room.