PHILIPS

Signage Display

4000 Series

32BDL4050Q

User Manual (English)

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1. Safety Instructions

Safety precautions and maintenance

⚠️ WARNING: Use of controls, adjustments or procedures other than those specified in this documentation may result in exposure to shock, electrical hazards and/or mechanical hazards.

Read and follow these instructions when connecting and using your display:

This product is intended for use in professional installations in business settings only and is not suitable for domestic purposes. Any use other than that for which this device is intended can void the warranty.

This product contains an operating system. If it is shut down directly using the AC switch, it may damage the program and prevent it from powering on again. If the system is unable to power on due to frequent shutdowns, please try a factory reset. Please note that all data stored in the system will be lost when the display is rebooted after a factory reset.

Operation:

- Keep the display out of direct sunlight and away from stoves or any other heat sources.
- Keep the display away from oil, otherwise the plastic cover may be damaged.
- It is recommended to set the display up in the well-ventilated place.
- Ultra-violet ray filter is necessary of outdoor operation.
- If the product will be used in extreme conditions such as high temperature, humidity, display patterns or operation time etc... It is strongly recommended to contact Philips for Application engineering advice. Otherwise, its reliability and function may not be guaranteed. Extreme conditions are commonly found at Airports, Transit Stations, Banks, Stock market, and Controlling systems.
- Remove any object that could fall into ventilation holes or prevent proper cooling of the display's electronics.
- Do not block the ventilation holes on the cabinet.
- When positioning the display, make sure the power plug and outlet are easily accessible.
- When turning off the display by detaching the power cord, wait 6 seconds before re-attaching the power cord for normal operation.
- Ensure the use of an approved power cord provided by Philips at all times. If your power cord is missing, please contact your local service center.
- Do not subject the display to severe vibration or high impact conditions during operation.
- Do not knock or drop the display during operation or transportation.
- The eye bolt is for usage in short-time maintenance and installation. We suggest not to use the eye bolt for more than 1 hour. Prolong usage is prohibited. Please keep a clear safety area under the display while using the eye bolt.

Maintenance:

- To protect your display from possible damage, do not put excessive pressure on the LCD panel. When moving your display, grasp the frame to lift; do not lift the display by placing your hands or fingers on the LCD panel.
- Unplug the display if you are not going to use it for an extensive period of time.
- Unplug the display if you need to clean it with a slightly damp cloth. The screen may be wiped with a dry cloth when the power is off. However, never use organic solvent, such as, alcohol, or ammonia-based liquids to clean your display.
- To avoid the risk of shock or permanent damage to the set, do not expose the display to dust, rain, water or an excessively moist environment.
- If your display becomes wet, wipe it with dry cloth as soon as possible.
- If a foreign substance or water gets in your display, turn the power off immediately and disconnect the power cord. Then remove the foreign substance or water, and send the unit to the maintenance center.
- Do not store or use the display in locations exposed to heat, direct sunlight or extreme cold.
- In order to maintain the best performance of your display and ensure a longer lifetime, we strongly recommend using the display in a location that falls within the following temperature and humidity ranges.

Environmental absolute ratings

Item	Min.	Max.	Unit
Storage temperature	-20	60	°C
Operation temperature	0	40	°C
Glass Surface temperature (Operation)	0	65	°C
Storage humidity	5	95	% RH
Operating humidity	20	80	% RH

• LCD panel temperature need to be 25 degrees Celsius at all time for better luminance performance.

• Only the lifetime of the display stated in this specification is guaranteed if the display is used under the proper operation conditions.

IMPORTANT: Always activate a moving screen saver program when you leave your display unattended. Always activate a periodic screen refresh application if the unit will display unchanging static content. Uninterrupted display of still or static images over an extended period may cause "burn in", also known as "after-imaging" or "ghost imaging", on your screen. This is a well-known phenomenon in LCD panel technology. In most cases, the "burned in" or "after-imaging" or "ghost imaging" will disappear gradually over a period of time after the power has been switched off.

WARNING: Severe "burn-in" or "after-image" or "ghost image" symptoms will not disappear and cannot be repaired. This is also not covered under the terms of your warranty.

Service:

• The casing cover should be opened only by qualified service personnel.

• If there is any need for repair or integration, please contact your local service center.

• Do not leave your display under direct sunlight.

If your display does not operate normally, having followed the instructions set out in this document, please contact a technician or your local service center.

Stability Hazard.

The device may fall, causing serious personal injury or death. To prevent injury, this device must be securely attached to the floor/wall in accordance with the installation instructions.

Read and follow these instructions when connecting and using your display:

- Unplug the display if you are not going to use it for an extensive period of time.
- Unplug the display if you need to clean it with a slightly damp cloth. The screen many be wiped with a dry cloth when the power is off. However, never use alcohol, solvents or ammonia-based liquids.
- Consult a service technician if the display does not operate normally when you have followed the instructions in this manual.
- The casing cover should be opened only by qualified service personnel.
- Keep the display out of direct sunlight and away from stoves or any other heat sources.
- Remove any object that could fall into the vents or prevent proper cooling of the display's electronics.
- Do not block the ventilation holes on the cabinet.
- Keep the display dry. To avoid electric shock, do not expose it to rain or excessive moisture.
- When turning off the display by detaching the power cable or DC power cord, wait for 6 seconds before re-attaching the power cable or DC power cord for normal operation..
- To avoid the risk of shock or permanent damage to the set do not expose the display to rain or excessive moisture.
- When positioning the display, make sure the power plug and outlet are easily accessible.
- **IMPORTANT:** Always activate a screen saver program during your application. If a still image in high contrast remains on the screen for an extended period of time, it may leave an 'after-image' or 'ghost image' on the front of the screen. This is a well-known phenomenon that is caused by the shortcomings inherent in LCD technology. In most cases the afterimage will disappear gradually over a period of time after the power has been switched off. Be aware that the after-image symptom cannot be repaired and is not covered under warranty.
- If provided with a 3-pin attachment plug on the power cord, plug the cord into a grounded (earthed) 3-pin outlet. Do not disable the power cord grounding pin, for example, by attaching a 2-pin adapter. The grounding pin is an important safety feature.

EU Declaration of Conformity

This device complies with the requirements set out in the Council Directive on the Approximation of the Laws of the Member States relating to Electromagnetic Compatibility (2014/30/EU), Low-voltage Directive (2014/35/EU), RoHS directive (2011/65/EU), ESPR Regulation (EU) 2024/1781.

This product has been tested and found to comply with the harmonized standards for Information Technology Equipment, these harmonized standards published under Directives of Official Journal of the European Union.

ESD Warnings

When user close to the monitor may cause the equipment discharge and reboot to the display of main menu.

Warning:

This equipment is compliant with Class A of EN55032/CISPR 32. In a residential environment this equipment may cause radio interference.

Federal Communications Commission (FCC) Notice (U.S. Only)

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Use only an RF shielded cable that was supplied with the display when connecting this display to a computer device.

To prevent damage which may result in fire or shock hazard, do not expose this appliance to rain or excessive moisture.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

TPV USA Corp
6525 Carnegie Blvd #200
Charlotte, NC 28211
USA

Polish Center for Testing and Certification Notice

The equipment should draw power from a socket with an attached protection circuit (a three-prong socket). All equipment that works together (computer, display, printer, and so on) should have the same power supply source.

The phasing conductor of the room's electrical installation should have a reserve short-circuit protection device in the form of a fuse with a nominal value no larger than 16 amperes (A).

To completely switch off the equipment, the power supply cable must be removed from the power supply socket, which should be located near the equipment and easily accessible.

A protection mark "B" confirms that the equipment is in compliance with the protection usage requirements of standards PN-93/T-42107 and PN-89/E-06251.

Wymagania Polskiego Centrum Badań i Certyfikacji

Urządzenie powinno być zasilane z gniazda z przyłączonym obwodem ochronnym (gniazdo z kołkiem). Współpracujące ze sobą urządzenia (komputer, monitor, drukarka) powinny być zasilane z tego samego źródła.

Instalacja elektryczna pomieszczenia powinna zawierać w przewodzie fazowym rezerwową ochronę przed zwarciami, w postaci bezpiecznika o wartości znamionowej nie większej niż 16A (amperów).

W celu całkowitego wyłączenia urządzenia z sieci zasilania, należy wyjąć wtyczkę kabla zasilającego z gniazdka, które powinno znajdować się w pobliżu urządzenia i być łatwo dostępne.

Znak bezpieczeństwa "B" potwierdza zgodność urządzenia z wymaganiami bezpieczeństwa użytkowania zawartymi w PN-93/T-42107 i PN-89/E-06251.

Pozostałe instrukcje bezpieczeństwa

- Nie należy używać wtyczek adapterowych lub usuwać kołka obwodu ochronnego z wtyczki. Jeżeli konieczne jest użycie przedłużacza to należy użyć przedłużacza 3-żyłowego z prawidłowo połączonym przewodem ochronnym.
- System komputerowy należy zabezpieczyć przed nagłymi, chwilowymi wzrostami lub spadkami napięcia, używając eliminatora przepięć, urządzenia dopasowującego lub bezzakłóceniowego źródła zasilania.
- Należy upewnić się, aby nic nie leżało na kablach systemu komputerowego, oraz aby kable nie były umieszczone w miejscu, gdzie można byłoby na nie nadeptywać lub potykać się o nie.
- Nie należy rozlewać napojów ani innych płynów na system komputerowy.
- Nie należy wpychać żadnych przedmiotów do otworów systemu komputerowego, gdyż może to spowodować pożar lub porażenie prądem, poprzez zwarcie elementów wewnętrznych.
- System komputerowy powinien znajdować się z dala od grzejników i źródeł ciepła. Ponadto, nie należy blokować otworów wentylacyjnych. Należy unikać kładzenia luźnych papierów pod komputer oraz umieszczania komputera w ciasnym miejscu bez możliwości cyrkulacji powietrza wokół niego.

Electric, Magnetic and Electromagnetic Fields ("EMF")

1. We manufacture and sell many products targeted at consumers, which, like any electronic apparatus, in general have the ability to emit and receive electromagnetic signals.
2. One of our leading Business Principles is to take all necessary health and safety measures for our products, to comply with all applicable legal requirements and to stay well within the EMF standards applicable at the time of producing the products.
3. We are committed to develop, produce and market products that cause no adverse health effects.
4. We confirm that if its products are handled properly for their intended use, they are safe to use according to scientific evidence available today.
5. We play an active role in the development of international EMF and safety standards, enabling us to anticipate further developments in standardization for early integration in its products.

Information for U.K. only
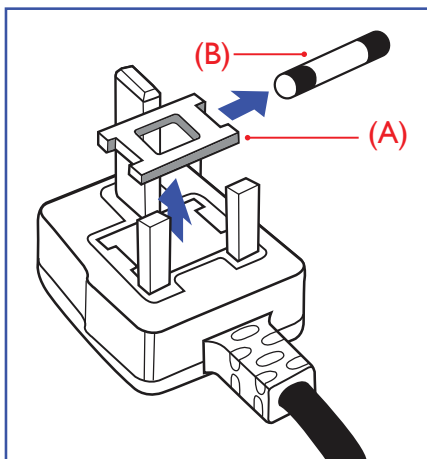
WARNING - THIS APPLIANCE MUST BE EARTHED.

Important:

This apparatus is supplied with an approved moulded 13A plug. To change a fuse in this type of plug proceed as follows:+

1. Remove fuse cover and fuse.
2. Fit new fuse which should be a BS 1362 5A, A.S.T.A. or BSI approved type.
3. Refit the fuse cover.

If the fitted plug is not suitable for your socket outlets, it should be cut off and an appropriate 3-pin plug fitted in its place.

If the mains plug contains a fuse, this should have a value of 5A. If a plug without a fuse is used, the fuse at the distribution board should not be greater than 5A.

NOTE: The severed plug must be destroyed to avoid a possible shock hazard should it be inserted into a 13A socket elsewhere.
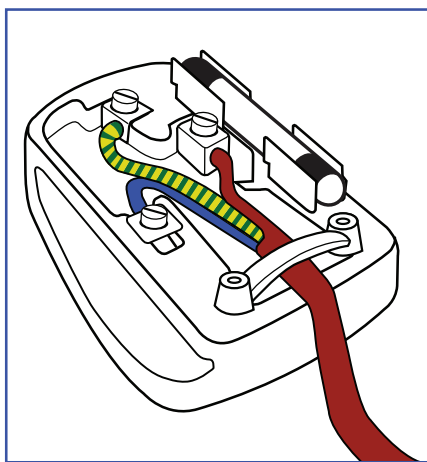
How to connect a plug

The wires in the mains lead are coloured in accordance with the following code:
BLUE - "NEUTRAL" ("N")
BROWN - "LIVE" ("L")
GREEN & YELLOW - "EARTH" ("E")

1. The GREEN & YELLOW wire must be connected to the terminal in the plug which is marked with the letter "E" or by the Earth symbol or coloured GREEN or GREEN & YELLOW.
2. The BLUE wire must be connected to the terminal which is marked with the letter "N" or coloured BLACK.
3. The BROWN wire must be connected to the terminal which marked with the letter "L" or coloured RED.

Before replacing the plug cover, make certain that the cord grip is clamped over the sheath of the lead - not simply over the three wires.

North Europe (Nordic Countries) Information

Placering/Ventilation

VARNING:

FÖRSÄKRA DIG OM ATT HUVUDBRYTARE OCH UTTAG ÄR LÄTÅTKOMLIGA, NÄR DU STÄLLER DIN UTRUSTNING PÅPLATS.

Placering/Ventilation

ADVARSEL:

SØRG VED PLACERINGEN FOR, AT NETLEDNINGENS STIK OG STIKKONTAKT ER NEMT TILGÆNGELIGE.

Paikka/Ilmankierto

VAROITUS:

SIJOITA LAITE SITEN, ETTÄ VERKKOJOHTO VOIDAAN TARVITTAESSA HELPOSTI IRROTTAA PISTORASIASTA.

Plassering/Ventilasjon

ADVARSEL:

NÅR DETTE UTSTYRET PLASSERES, MÅ DU PASSE PÅ AT KONTAKTENE FOR STØMTILFØRSEL ER LETTE Å NÅ.

Turkey RoHS:

Türkiye Cumhuriyeti: EEE Yönetmeliğine Uygundur

Ukraine RoHS:

Обладнання відповідає вимогам Технічного регламенту щодо обмеження використання деяких небезпечних речовин в електричному та електронному обладнанні, затвердженого постановою Кабінету Міністрів України від 10 березня 2017 р. № 139

End-of-Life Disposal

Your new Public Information Display contains materials that can be recycled and reused. Specialized companies can recycle your product to increase the amount of reusable materials and to minimize the amount to be disposed of.

Please find out about the local regulations on how to dispose of your old display from your local Philips dealer.

(For customers in Canada and U.S.A.)

This product may contain lead and/or mercury. Dispose of in accordance to local-state and federal regulations. For additional information on recycling contact www.eia.org (Consumer Education Initiative)

Waste Electrical and Electronic Equipment-WEEE

Attention users in European Union private households

This marking on the product or on its packaging illustrates that, under European Directive 2012/19/EU governing used electrical and electronic appliances, this product may not be disposed of with normal household waste. You are responsible for disposal of this equipment through a designated waste electrical and electronic equipment collection. To determine the locations for dropping off such waste electrical and electronic, contact your local government office, the waste disposal organization that serves your household or the store at which you purchased the product.

Attention users in United States:

Please dispose of according to all Local, State and Federal Laws. For the disposal or recycling information, contact: www.mygreenelectronics.com or www.eiae.org.

End of Life Directives-Recycling

Your new Public Information Display contains several materials that can be recycled for new users.

Please dispose of according to all Local, State, and Federal laws.

ENERGY STAR is a program run by the U.S. Environmental Protection Agency (EPA) and U.S. Department of Energy (DOE) that promotes energy efficiency.

This product qualifies for ENERGY STAR in the "factory default" settings and this is the setting in which power savings will be achieved.

Changing the factory default picture settings or enabling other features will increase power consumption that could exceed the limits necessary to qualify for ENERGY STAR rating.

For more information on the ENERGY STAR program, refer to energystar.gov.

Restriction on Hazardous Substances statement (India)

This product complies with the "E-Waste (Management) Rules, 2016" CHAPTER V, rule 16, sub-rule (1) . Whereas New Electrical and Electronic Equipment and their components or consumables or parts or spares do not contain Lead, Mercury, Cadmium, Hexavalent Chromium, polybrominated biphenyls and polybrominated diphenyl ethers beyond a maximum concentration value of 0.1% by weight in homogenous materials for lead, mercury, hexavalent chromium, polybrominated biphenyls and polybrominated diphenyl ethers and of 0.01% by weight in homogenous materials for cadmium. except of exemptions set in Schedule 2 of the Rule.

E-Waste Declaration for India
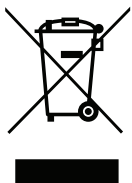
This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment . The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about E -waste please visit http://www.india.philips.com/about/sustainability/recycling/index.page and to know where you can drop off your waste equipment for recycling in India please contact on below given contact details.

Helpline number: 1800-425-6396 (Monday to Saturday, 9 a.m. to 5:30 pm)

E-mail: india.callcentre@tpv-tech.com

Batteries

For EU: The crossed-out wheeled bin implies that used batteries should not be put to the general household waste! There is a separate collection system for used batteries, to allow proper treatment and recycling in accordance with legislation.

Please contact your local authority for details on the collection and recycling schemes.

For Switzerland: The used battery is to be returned to the selling point.

For other non-EU countries: Please contact your local authority for correct method of disposal of the used battery.

According to EU directive 2006/66/EC, the battery can't be disposed improperly. The battery shall be separated to collect by local service.

Após o uso, as pilhas e/ou baterias deverão ser entregues ao estabelecimento comercial ou rede de assistência técnica autorizada.

2.   Unpacking and Installation
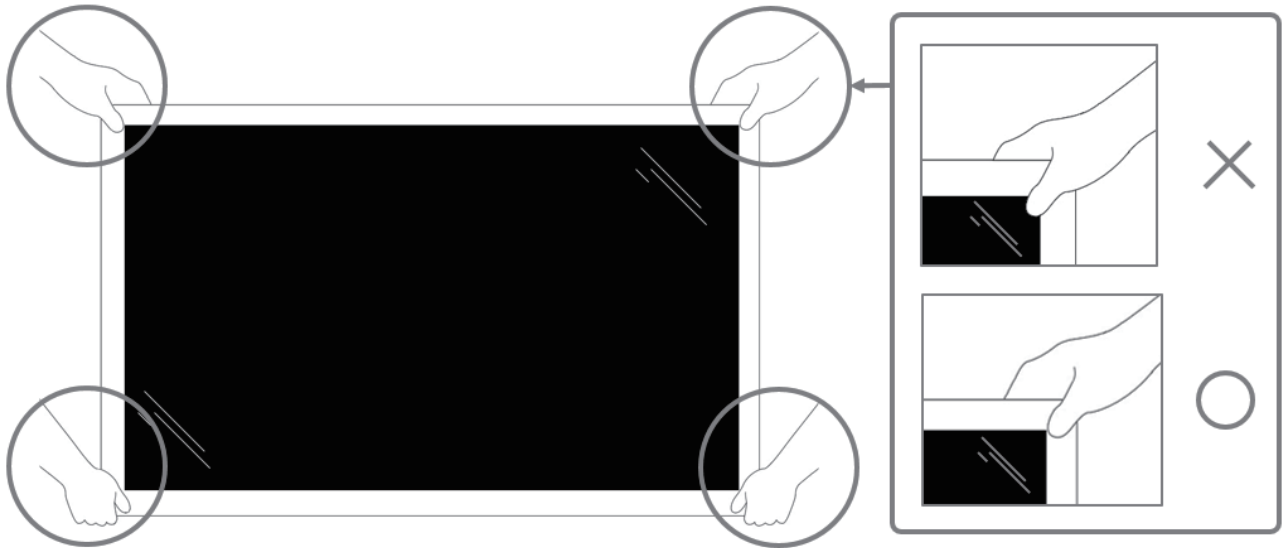
2.1.   Unpacking
- This product is packed in a carton, together with the standard accessories.
- Any other optional accessories will be packed separately.
- As this product is high and heavy, the operation of moving the device is recommended to be performed by two technicians.
- After opening the carton, ensure that the contents are complete and in good condition.
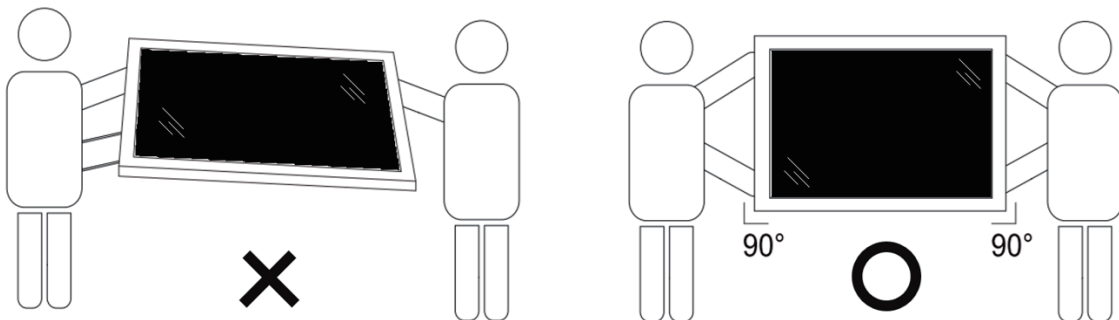
■ Before Unpacking
- Please read and fully understand unpacking notice before installation.
- Please check the packing, there should be no any abnormality such as creak, dent mark…etc.
- Please do necessary inspection before you move the display out of the carton.
- Always install the display by experienced technician to prevent any damage.

■ Notice
- Take the display out of the carton box by two adults with both hands.
- Please do not grab or touch the glass of the display.
- Please grab on the bezel surface (plastic or metal) of the display.

- Please keep the display vertically when moving it.

• Place the display vertically and its weight should spread evenly on the surface.

fixed

• Please keep vertically, no bending and torsion during moving the display.

fixed

2.2.   Package Contents

Please verify that you received the following items with your package content:

- LCD Display
- Quick Start Guide
- Remote Control and AAA Batteries
- Power Cord
- RS232 Cable
- RS232 Daisy Chain Cable
- IR Sensor Cable
- USB Cover
- Philips Logo Plate
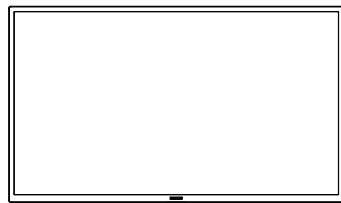
LCD Display   Remote Control   Quick Start Guide
                           and AAA Batteries

* The supplied power cord varies depending on destination.

Power Cord   RS232 Cable   RS232 Daisy   IR Sensor Cable
                                     Chain Cable

USB Cover   Philips Logo
                      Plate

* Differences according to regions.

* Display design and accessories may differ from those illustrated above.

NOTES:

- For all other regions, apply a power cord that conforms to the AC voltage of the power socket and has been approved by and complies with the safety regulations of the particular country (Type H05W-F, 2G or 3G, 0.75 or 1 mm^2 should be used).
- Keep the packaging materials appropriately after unpacking the product.

2.3.   Installation Notes

- Only use the power cable provided with this product. If an extension cord is required, please consult your service agent.
- The product should be installed on a flat surface, or the product may tip over. Leave a space between the rear of the product and the wall for proper ventilation. Do not install the product in a kitchen, bathroom or a place exposed to moisture, failure to do so may shorten the life of the internal parts.
- Do not install the product where it is 5000m and higher in altitude. Failure to do so may result in malfunctions.

2.4. Mounting on a Wall

To mount this display on a wall, a standard wall-mounting kit (commercially available) is required. It is recommended that you use a mounting interface that complies with TUV-GS and /or UL1678 standard in North America.

Protective Sheet

VESA Grid

Table
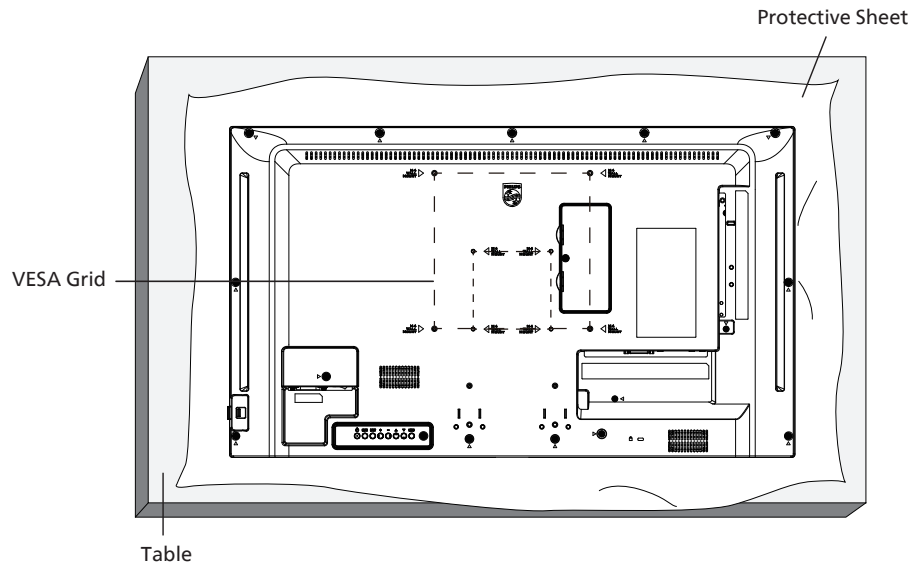
1. Prepare a flat and horizontal surface that is larger than the display and spread a thick protective sheet on it to facilitate your operation without scratching the screen.
2. Ensure you have all accessories for all types of mounting (wall mount, ceiling mount, table stand, etc).
3. Follow the instructions that came with the base mounting kit. Failure to follow the correct mounting procedures could result in damage to the equipment, or injury to the user or installer. The product warranty does not cover the damage caused by improper installation.
4. For the wall-mounting kit, use the M4 mounting screws (with a length 10 mm longer than the thickness of the mounting bracket) and tighten them securely.

2.4.1. VESA Grid

| 32BDL4050Q | 100(H) x 100(V) mm |
| | 200(H) x 200(V) mm |

Caution:

To prevent the display from falling:

• For wall or ceiling mounting, we recommend that you install the display with metal brackets which are commercially available. For detailed instructions about the installation, refer to the guide provided with the bracket.

• To prevent the display from falling in case of earthquake or other natural disaster, please consult the manufacturer of the bracket for the mounting location.

• As this product is high and heavy, the installation of this product is recommended to be performed by four technicians.

Required space for ventilation

Leave a space of 100 mm at the top, rear, right and left of the display for ventilation.

Note: We recommend you contact a professional technician when installing the display on a wall. We are not responsible for any damage to the product if the installation is not performed by a professional technician.
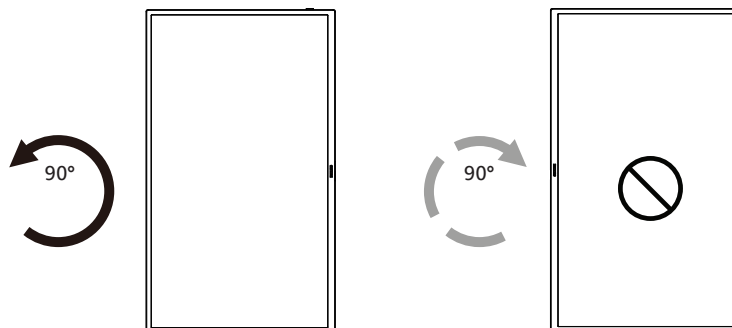

100 mm

100 mm   100 mm

100 mm
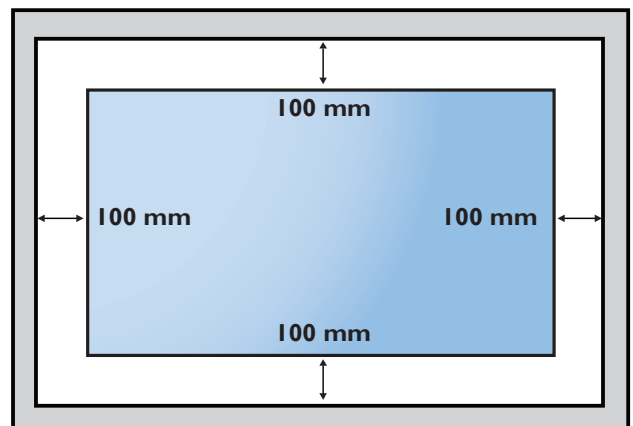
2.5. Mounting in Portrait Orientation

This display can be installed in portrait orientation.

Rotate the display 90 degrees counterclockwise. The "**PHILIPS**" logo should be on the side when facing the display.

NOTE: The working hour in portrait mode is 18 hours per day.


2.5.1. How to remove the logo plate

1. Prepare a piece of paper with a cutting area of logo as a protector to prevent the front bezel from scratching.
2. Use a knife and carefully remove the logo sticker with the paper placing beneath.
3. Tear off the logo sticker.
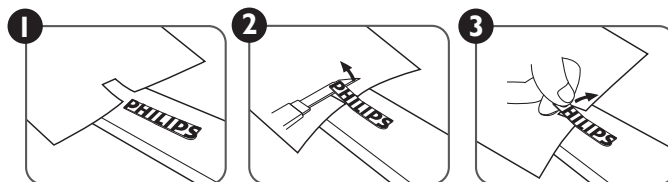
NOTE: We recommend you contact a professional technician when installing the display on a wall. We are not responsible for any damage to the product if the installation is not performed by a professional technician.

3.   Parts and Functions

3.1.   Control Panel
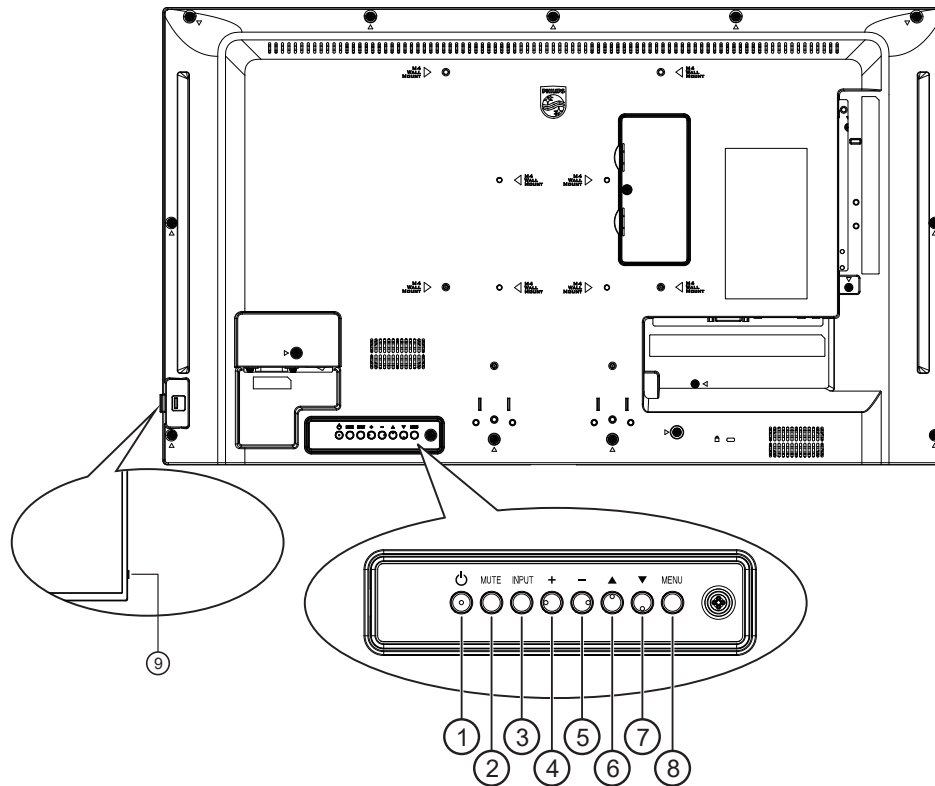
① **[⏻] button**
Press this button to turn the display On or turn the display to standby mode.

② **[MUTE] button**
Press this button to mute the sound or reactivate sound.

③ **[INPUT] button**
Choose the input source.
Confirm a selection in the OSD menu.

④ **[＋] button**
Increase the adjustment while OSD menu is on, or increase the audio output level while OSD menu is off.

⑤ **[▬] button**
Decrease the adjustment while OSD menu is on, or decrease the audio output level while OSD menu is off.

⑥ **[▲] button**
Move the selected item one level up while the OSD menu is On.

⑦ **[▼] button**
Move the selected item one level down while the OSD menu is On.

⑧ **[MENU] button**
Return to the previous menu while the OSD menu is On. This button can also be used to activate the OSD menu when the OSD menu is Off.

⑨ **Remote control sensor and power status indicator**
  • Receives command signals from the remote control.
  • Indicates the operating status of the display:
    - Lights green when the display is turned on.
    - Lights red when the display is in standby mode.
    - Lights amber when the display enters APM mode.
    - When **{SCHEDULE}** is enabled, the light blinks green and red.
    - If the light blinks red, it indicates that a failure has been detected.
    - Lights off when the main power of the display is turned off.

3.2. Input/Output Terminals
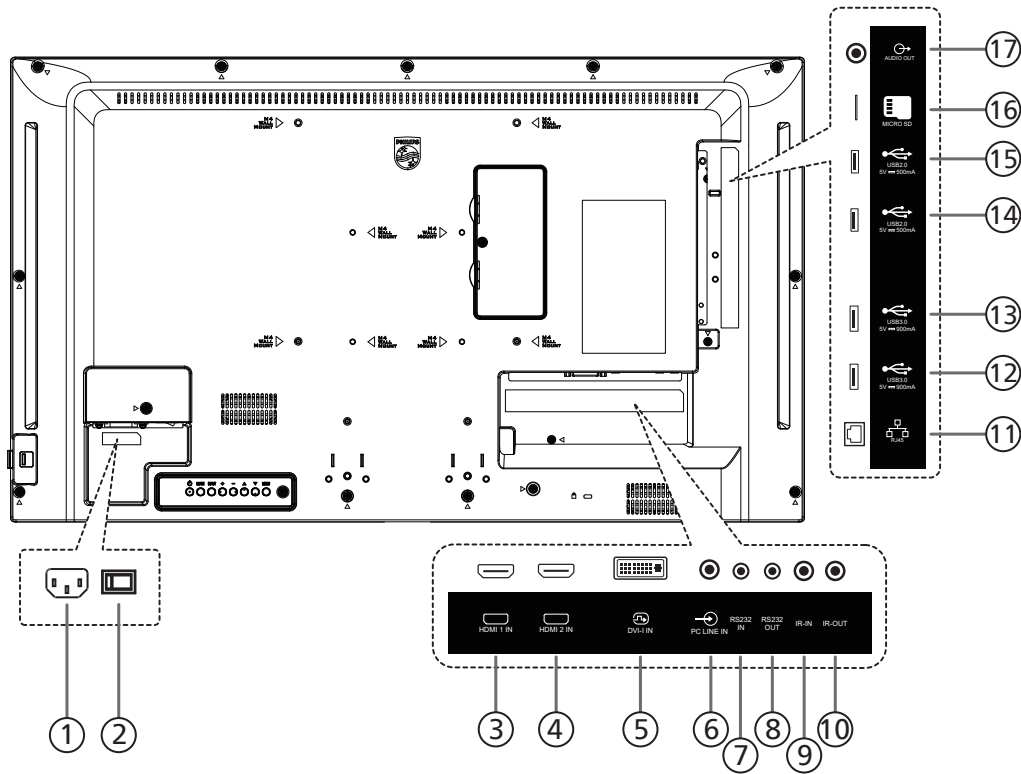
① **AC IN**
AC power input from the wall outlet.

② **MAIN POWER SWITCH**
Switch the main power between On and Off.

③ **HDMI1 IN** / ④ **HDMI2 IN**
HDMI video/audio input.

⑤ **DVI-I IN**
DVI-I video input. VGA video input.

⑥ **PC LINE IN**
Audio input for VGA source (3.5mm stereo phone).

⑦ **RS232 IN** / ⑧ **RS232 OUT**
RS232 network input / output for the loop-through function.

⑨ **IR IN** / ⑩ **IR OUT**
IR signal input / output for the loop-through function.

NOTES:
- This display's remote control sensor will stop working if the jack [IR IN] is connected.
- To remotely control your A/V device via this display, refer to page 23 for IR Pass Through connection.

⑪ **RJ-45**
The LAN control function is used for sending the remote control signal from the control center.

⑫ **USB 3.0**/ ⑬ **USB 3.0**
Connect to a USB storage device.

⑭ **USB 2.0** / ⑮ **USB 2.0**
Connect to a USB storage device.

⑯ **Micro SD card slot**
Insert a micro SD card.

⑰ **AUDIO OUT**
Audio output to external AV device.

3.3.   Remote Control

3.3.1.   General functions
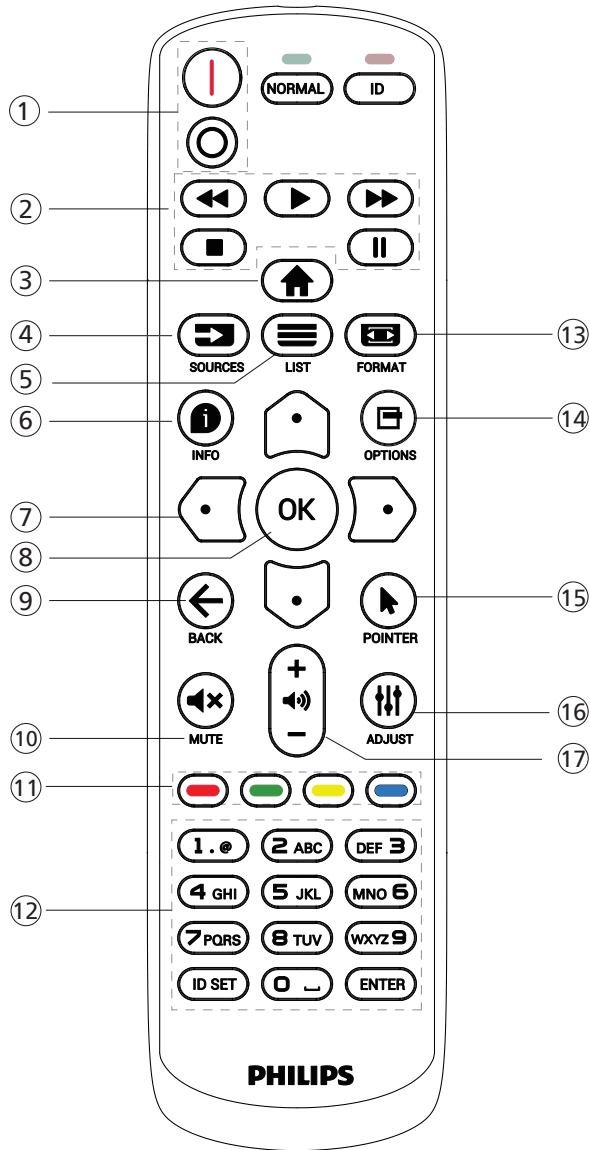
① [I/O] POWER button

[I]Turn the power On.
[O]Turn the power Off.

② [PLAY] buttons

Control playback of media files.(for Media Input only)
Freeze feature

Pause: hotkey for freezing all inputs content.

Play: hotkey for unfreezing all input content.

③ [🏠] HOME button

Root Menu: Go to the OSD of Main Menu.

Others: Exit from the OSD.

④ [➡] SOURCE button

Root Menu: Go to the OSD of Video source.

⑤ [≡] LIST button

Reserved.

⑥ [🛈] INFO button

Show Information OSD.

⑦ NAVIGATION buttons

[🏠]
Root Menu: Go to the OSD of Smart picture.
Main Menu: Move the selected item up to make adjustment.
IR Daisy Chain Menu: Increase the controlled Group ID number.

[🛡]
Root Menu: Go to the OSD of Audio source.
Main Menu: Move the selected item bar down to make adjustment.
IR Daisy Chain Menu: Decrease the controlled Group ID number.

[◁]
Main Menu: Go to the previous level of menu.
Source Menu: Exit from the source menu.
Volume Menu: Decrease the volume.

[▷]
Main Menu: Go to the next level of menu or set selected option.
Source Menu: Go to the selected source.
Volume Menu: Increase the volume.

⑧ [OK] button

Root Menu: Go to the OSD of IR daisy chain in Primary/ Secondary mode.

Main Menu: Confirm an entry or selection.

⑨ [←] BACK button

Return to the previous page or exit from the previous function.

⑩ [🔇] MUTE button

Mute or unmute the sound.

⑪ [🟥] [🟩] [🟨] [🟦] COLOR buttons

[🟦] Hotkey to turn on and off backlight.

⑫ [Number/ ID SET/ ENTER] button

Enter text for network setting.

Press to set the display ID. Refer to 3.3.2. ID Remote Control for more details.

⑬ [▣] FORMAT button

Select image zoom mode from Full, 4:3, 1:1, 16:9 or Custom.

⑭ [▤] OPTIONS button

Reserved.

⑮ [▶] POINTER button

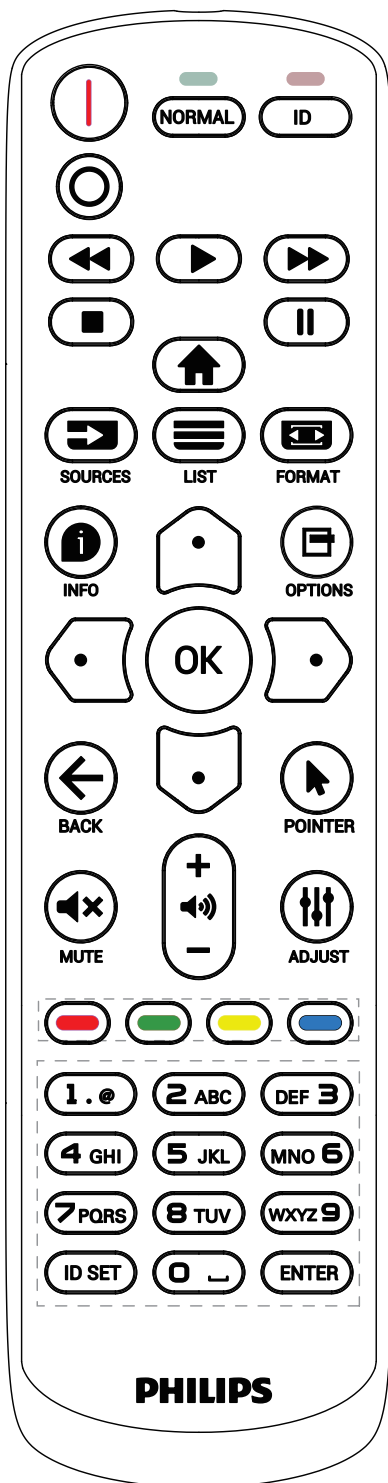Reserved.

⑯ [⚏] ADJUST button

Go to the OSD of Auto Adjust (for VGA only).

⑰ [—] [+] VOLUME button

Adjust the volume.

3.3.2. ID Remote Control

Set remote control ID number when using several displays.

Press the [ID] button and the red LED blinks twice.

1. Press [ID SET] button for more than 1 second to enter the ID Mode. The red LED lights up.
   Press the [ID SET] button again will exit the ID Mode. The red LED lights off.

Press the digit numbers [0] ~ [9] to select the display to be controlled.
For example: press [0] and [1] for display No.1, press [1] and [1] for display No.11.
The numbers available are [01] ~ [255].

2. If no button is pressed within 10 seconds, it will exit from the ID mode.

3. If a wrong button is pressed, wait for 1 second until the red LED lights off and then turns on again, then press the correct digits.

4. Press [ENTER] button to confirm your selection. The red LED blinks twice and then lights off.

NOTE:

- Press [NORMAL] button. The green LED blinks twice, indicating that the display is under normal operation.

- It is necessary to set up the ID number for each display before selecting its ID number.

3.3.3. Remote Control buttons on Android source
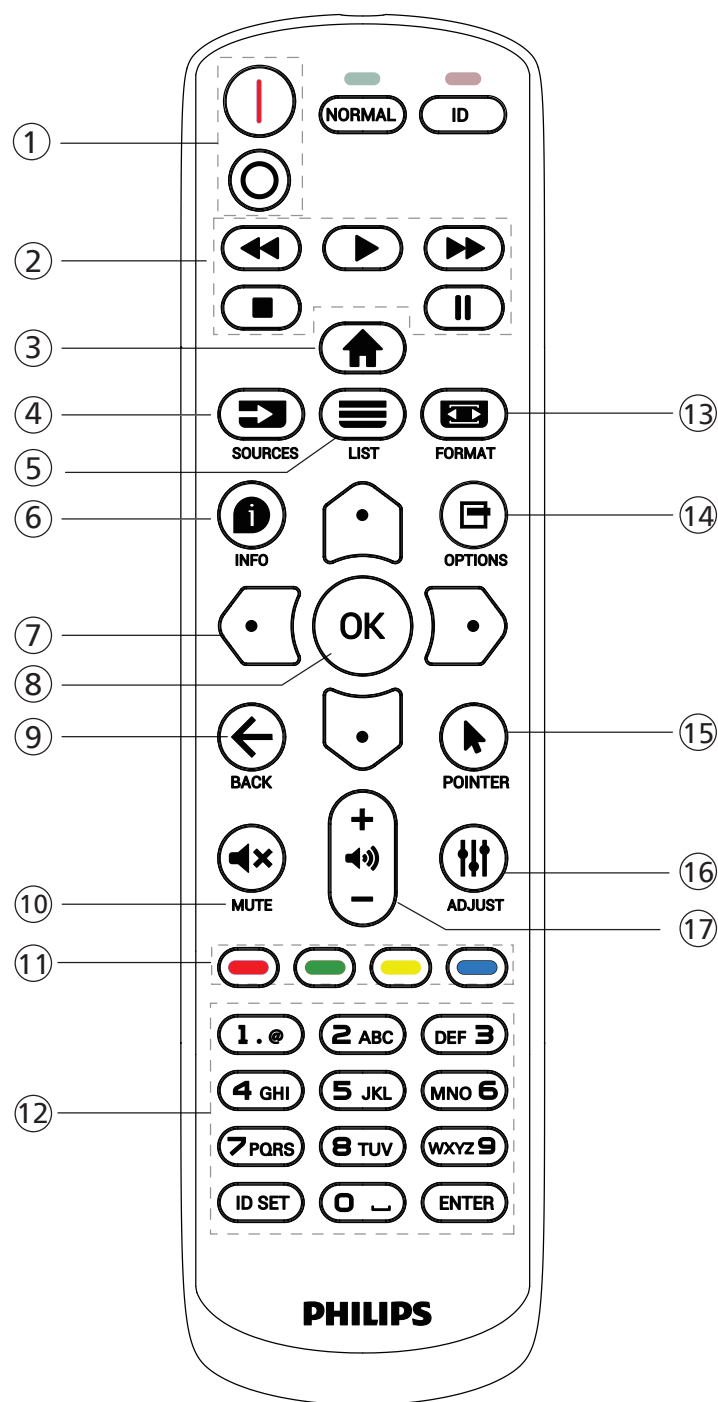
① **[I/○] POWER button**

Turn the display On or standby mode.
The button is only controlled by Scalar.

② **[PLAY] buttons**

1. Control playback of media (video/audio/picture) files.
There are 3 ways to play the media files.

1) Media Player -> Compose -> edit or add a new playlist -> choose any media files -> press [▶] button to play the media file directly.

2) Media Player -> Play -> choose non-empty play list -> press [OK] to play all media files from the playlist.

3) Set media playlist in Boot on Source or Schedule by OSD menu.

2. Play PDF file
There are 2 ways to play pdf files.

1) PDF Player -> Play -> choose non-empty play list -> press [OK] to play all the PDF files in the play list.

2) Set pdf playlist in Boot on Source or Schedule by OSD menu.

3. When playing PDF, video or music, press [II] to stop playing. Then if pressing [II] again, playing will be started from the beginning of the file.

4. When playing PDF, video or music, press [II] button to pause playing.

5. All media or pdf files should be put at the folder, which is named "philips" with sub-folder, under the root directory of the specified storage (internal/USB/ SD Card). All sub-folders (video/photo/music/pdf) are named by media types and shouldn't be changed.

    videos: {root dir of storage}/philips/video/

    photos: {root dir of storage}/philips/photo/

    music : {root dir of storage}/philips/music/

    pdfs : {root dir of storage}/philips/pdf/

Note that the root directories of three storages are

    Internal storage: /sdcard

    USB storage: /mnt/usb_storage

    SD card : /mnt/external_sd

③ **[⌂] HOME button**

Access the OSD menu.
The button is only controlled by Scalar.

④ **[⇥] SOURCE button**

Select an input source.
The button is only controlled by Scalar.

⑤ **[≡] LIST button**

1. In the content of the web page, move the focus up to the next selectable items.

2. Move the focus up to the next control or widget such as buttons.

⑥ **[❶] INFO button**

1. Display information about the current input signal. It is shown by Scalar.

2. Media Player -> Compose -> edit or add a new playlist -> choose any media files -> press ❶ to show the information of the selected media file.

⑦ **NAVIGATION buttons**

1. Navigate through the menus and select an item.

2. In the content of the web page, these buttons are for controlling the scroll bar of the screen. Press ⌂ or ⌄ for

moving the vertical scroll bar up or down. Press ◁ or ▷ for moving the horizontal scroll bar left or right.

3. For PDF files

Press [◁] to go to the next page.

Press [◁] to go to the previous page.

⑧ [OK] button

Confirm an entry or selection.

⑨ [←] BACK button

Return to the previous page or exit from the previous function.

⑩ [◀×] MUTE button

Mute or unmute the sound.
The button is only controlled by Scalar.

⑪ [━] [━] [━] [━] COLOR buttons

[━] Hotkey to turn on and off backlight.

⑫ [Number/ ID SET/ ENTER] button

1. No functions for ID SET ▭ and ENTER (OK) on Android source.

2. For PDF file, enter the page number by pressing number buttons and then press (OK) button to jump to the specific page.

⑬ [▭] FORMAT button

Change picture format. The button is only controlled by Scalar.

⑭ [▤] OPTIONS button

Open toolbox in Media Player or PDF Player.

1. Media Player -> Compose -> Edit or new add playlist -> press ▤ to open toolbox. Toolbox will be slide from the left side of the screen.

 2. For PDF file, enter the page number by pressing number buttons and then press ▤ button to jump to the specific page.

⑮ [▸] POINTER buttons

Reserved.

⑯ [▥] ADJUST button

1. In the content of the web page, move the focus down to the next selectable items.

2. Move the focus down to the next control or widget such as buttons.

⑰ [━] [+] VOLUME button

Adjust volume level. The buttons are only controlled by Scalar.

3.4.   Inserting the Batteries in the Remote Control

The remote control is powered by two 1.5V AAA batteries.

To install or replace the batteries:
1.   Press and then slide the cover to open it.
2.   Insert the batteries with the correct polarity (+) and (–).
3.   Replace the cover.

Caution:

Incorrect use of batteries may cause leakage or explosion. Be sure to follow the instructions below:
•   Insert "AAA" batteries with the correct polarity (+ and -).
•   Do not mix battery types.
•   Do not use a new battery with a used one together. Otherwise, it may cause leakage or shorten the life of the batteries.
•   Remove the dead batteries immediately to avoid battery leakage in the battery compartment. Do not touch exposed battery acid, as it may cause injury to your skin.
•   Disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery, that can result in an explosion; leaving a battery in an extremely high temperature surrounding environment that can result in an explosion or the leakage of flammable liquid or gas; and a battery subjected to extremely low air pressure that may result in an explosion or the leakage of flammable liquid or gas.

Note: Remove the batteries from the battery compartment when not using for an extended period of time.

3.5.   Handling the Remote Control

•   Do not drop or apply shock to the remote control.
•   Do not allow any liquid to get inside the remote control. If water has entered the remote control, wipe the remote control with a dry cloth immediately.
•   Do not place the remote control near heat and steam sources.
•   Do not attempt to disassemble the remote control, unless you need to place batteries in the remote control.

3.6.   Operating Range of the Remote Control

Point the top front of the remote control at the remote sensor on the display when you press the buttons.

Use the remote control within a distance of less than 4m/16ft from the display's sensor, and a horizontal and vertical angle of less than 20°.

Note: The remote control may not function properly when the remote control sensor on the display is under direct sunlight or strong illumination, or when there is an object between the remote control and the remote sensor of the display.
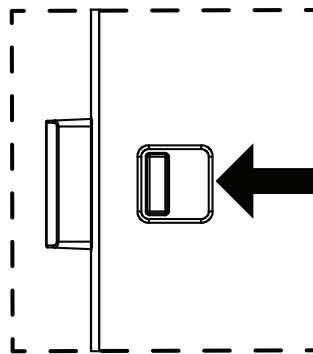
20°   20°
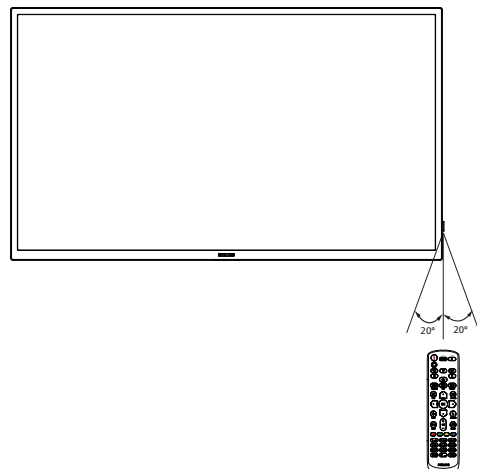
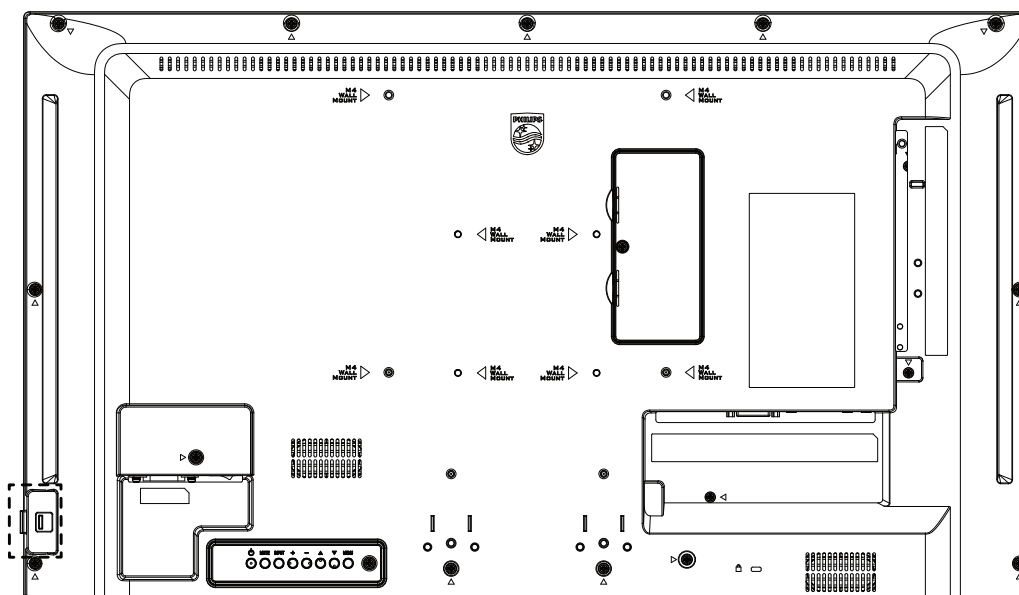## 3.7.   Using the Remote Sensor and Power Indicator

1. Push the lens to the left to have better remote control performance and make it easy to observe the power status.
2. Pull the lens to the right before mounting the display for video wall application.
3. Pull/push the lens until a click sound is heard.
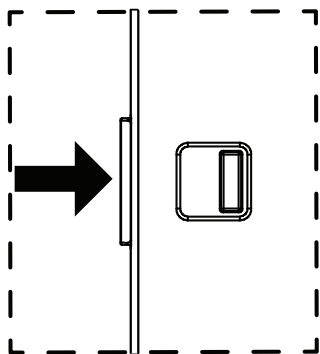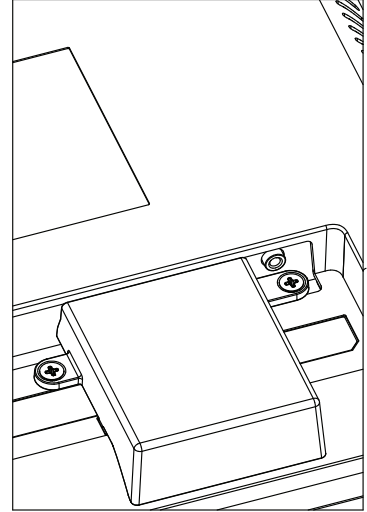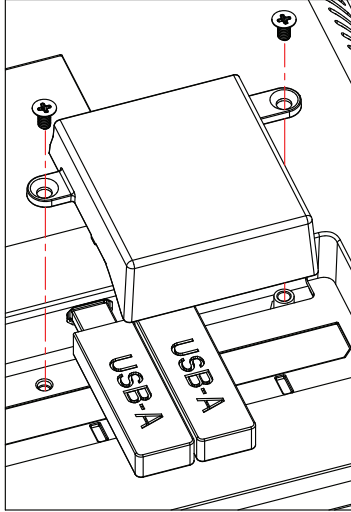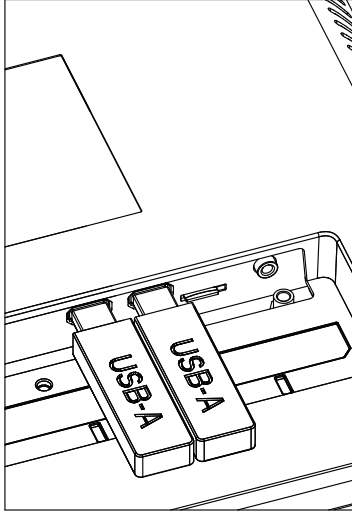

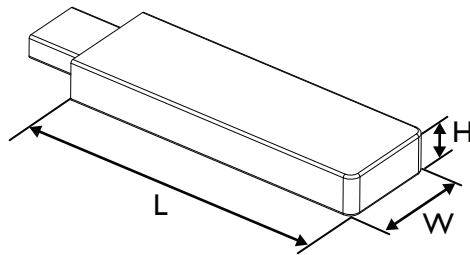Push to the right to collapse the lens   Push to the left to expand the lens

3.8.   USB Cover

• Use the USB cover and screws to cover the USB stick.
   1. Plug in the USB device and insert the micro SD card.
   2. Use the screw provided to fix the USB cover.

• Maximum USB stick size recommended: 20(W)x10(H)x60(L) mm
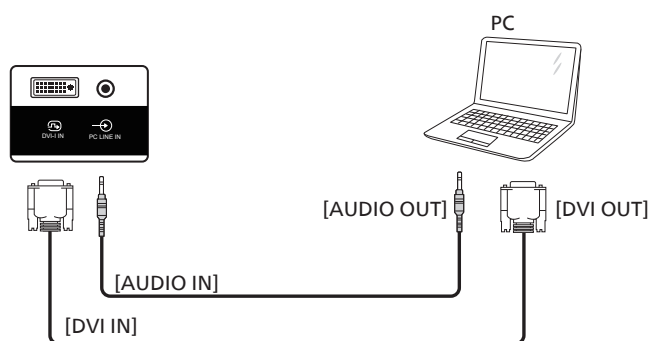
4.   Connecting External Equipment

4.1.   Connecting External Equipment (Multimedia Player)
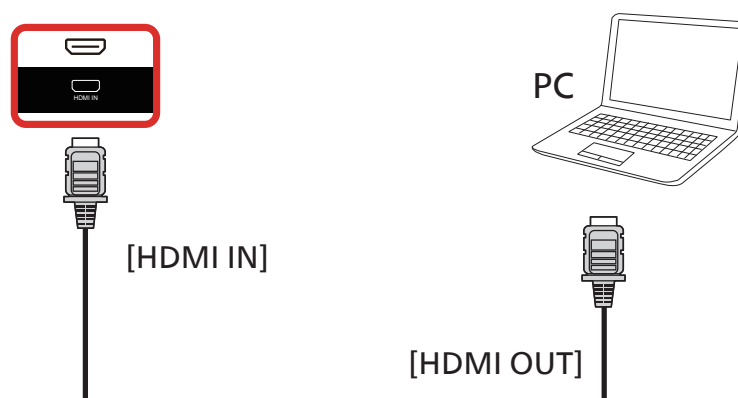
4.1.1. Using HDMI video input

Multimedia Player

[HDMI IN]

[HDMI OUT]
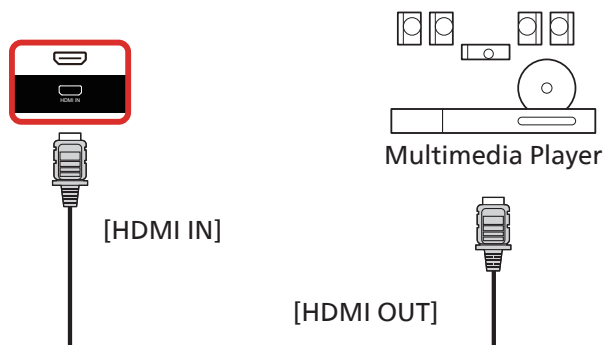
4.2.   Connecting a PC

4.2.1. Using DVI input

PC

DVI-I IN   PC LINE IN

[AUDIO OUT]   [DVI OUT]
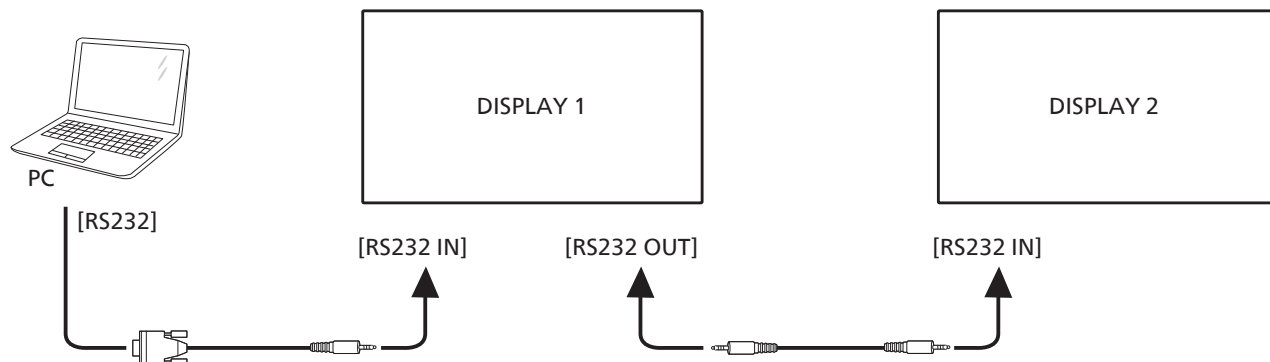
[AUDIO IN]

[DVI IN]

4.2.2. Using HDMI input

HDMI IN

PC

[HDMI IN]

[HDMI OUT]

4.3. Connecting Multiple Displays in a Daisy-Chain Configuration

You can interconnect multiple displays to create a daisy-chain configuration for applications such as a menu board.

4.3.1. Display control connection

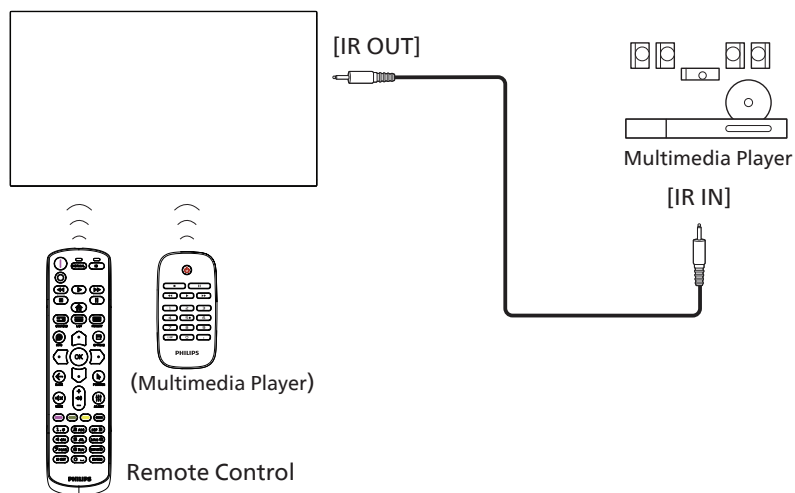Connect the [RS232 OUT] connector of DISPLAY 1 to the [RS232 IN] connector of DISPLAY 2.
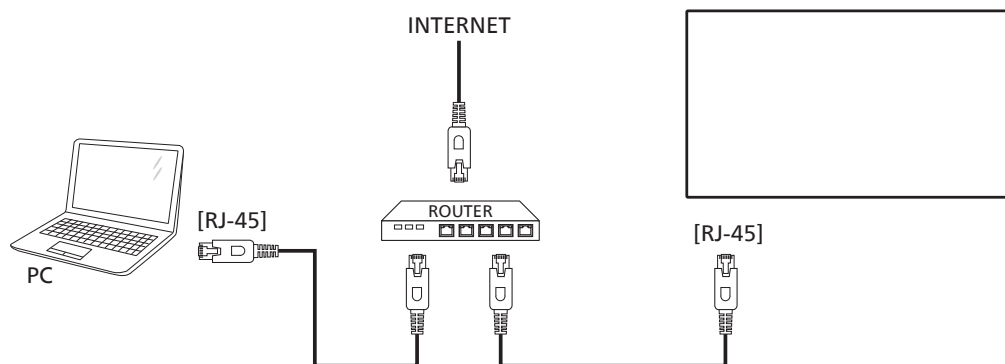

4.4. IR Connection
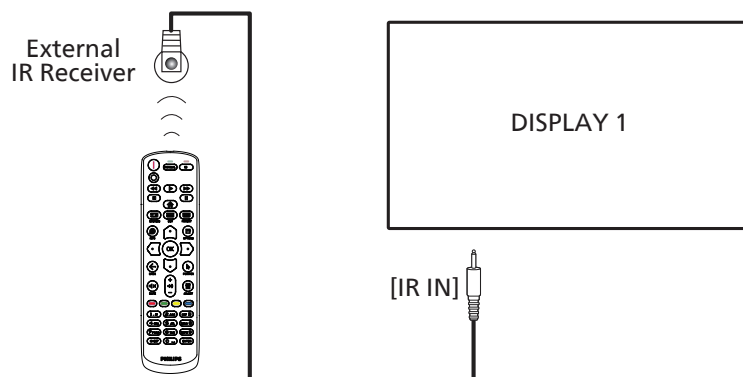
NOTE:

This display's remote control sensor will stop working if the [**IR IN**] is connected.

4.5. IR Pass-through Connection

4.6. Wire-Connecting to Network

Network Settings:

1. Switch the router on and enable its DHCP setting.
2. Connect the router to this display with an Ethernet cable.
3. Press [🏠] **HOME** button on the remote control, then select **Setup**.
4. Select **Connect to network**, then press [OK] button.
5. Wait until this display finds the network connection.
6. If the "End User License Agreement" window prompts, accept the agreement.

NOTE: Connecting with a shielded CAT-5 Ethernet cable to comply with the EMC directive.

5.   Operation

NOTE: The control button described in this section is mainly on the remote control unless specified otherwise.

5.1.   Watch the Connected Video Source

1. Press the [→] SOURCE button.
2. Press [⌂] or [⌄] button to select a device, then press [OK] button.

5.2.   Change Picture Format

You can change the picture format to suit the video source. Each video source has its available picture formats.

The available picture formats depend on the video source:

1. Press [▭] FORMAT button to choose a picture format.
    *   PC mode: {Full} / {4:3} / {Real} .
    *   Video mode: {Full} / {4:3} / {Real} .

5.3.   Overview

1. Android PD launcher:
    *   Android PD launcher is a black page as shown below:
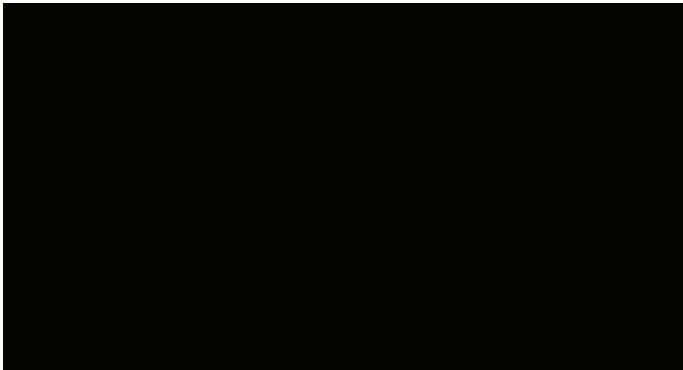
    *   Exit the App by pressing the "Back" key and the screen will enter Android PD launcher.
    *   When you return to Android PD launcher, a hint image will be prompted on the screen for 5~10 seconds.
    *   The hint image notifies you that you can press source key to change source.
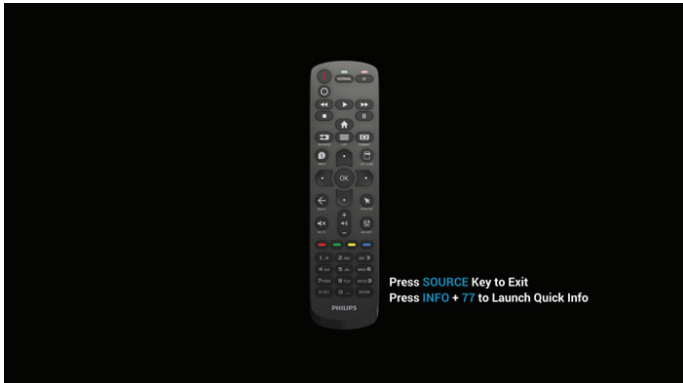
2. Admin mode:
    *   Press "Home + 1888" to enter the Admin mode. Please make sure that you see the Home OSD menu after "Home" is pressed, and then press 1888 in sequence.

Two continuous "Home" keys will not be a valid hotkey.

*   The Admin mode consists of the following Apps: "Settings", "Apps", "Network" "Storage" and "Help".
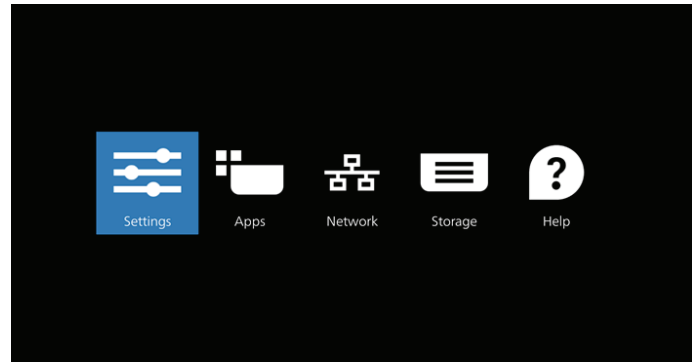*   When leaving from the Admin mode, the system will return to last source.

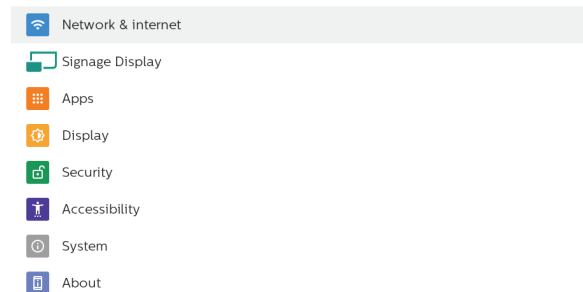Settings: go to Settings page.

Applications: show all apps.

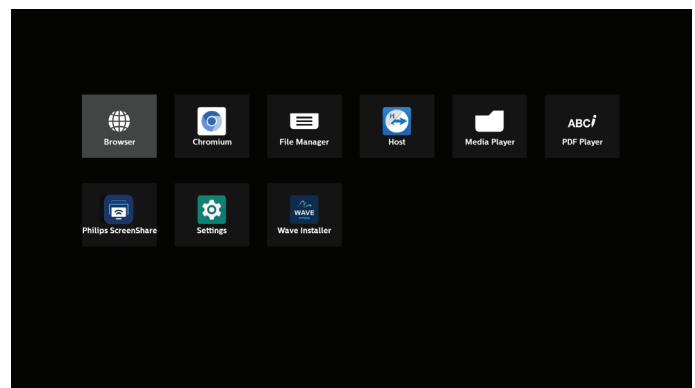Network: set Ethernet

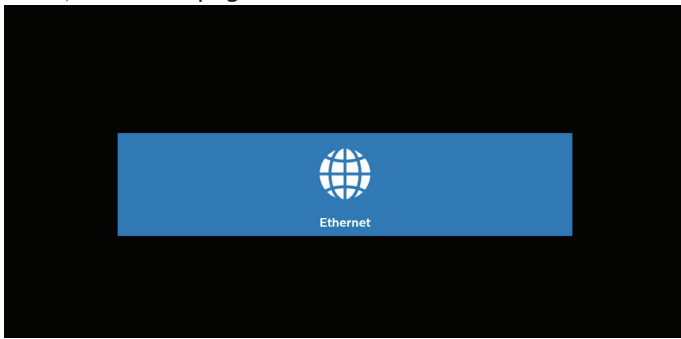Storage: go to Storage page.
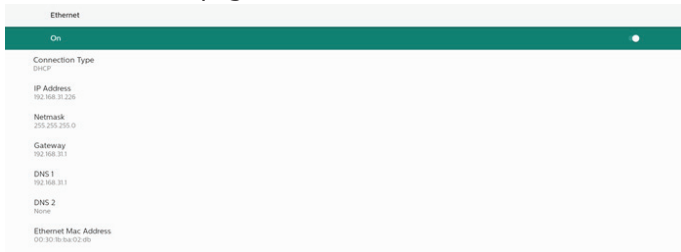
Help: display QR code to get help.

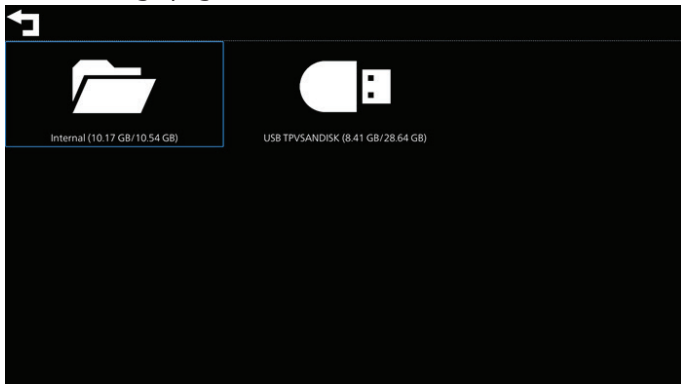1) Settings page

2) Application page

3） Network page

3.1) Ethernet page

4) Storage page

5) Help page

Display QR to link to Philips support website.

5.4. Media Player

5.4.1. OSD Menu Interaction with Media Player:

1. Boot on source:
    -   Input:
        -   If you select Media player as the source, the system will enter media player automatically after the boot process is completed.
    -   Playlist:
        -   0: go to the main page of media player.
        -   1 - 7: go to media player and playback File1 - File7 of playlist automatically.
        -   USB AutoPlay: go to media player and play USB files automatically.

2. Schedule:
    -   Schedule list:
        -   Set up to 7 schedules.
    -   Enable:
        -   Enable/disable schedule.
    -   Start time:
        -   Set start time.
    -   End time:
        -   Set end time.
    -   Playlist:
        -   1-7 : go to media player and playback File1 - File7 of playlist automatically.
        -   USB AutoPlay: media player autoplay media file of USB storage.
    -   Days of the week:
        -   Set Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday.
    -   Every week:
        -   Set a weekly schedule.
    -   Save:
        -   Save the schedule.

### 5.4.2. Media Player Introduction:

1. The main page of Media Player, this page consists of three options: "Play", "Compose" and "Settings".
    Play: select a playlist to play.
    Compose: edit a playlist.
   Settings: set the properties of Media Player.
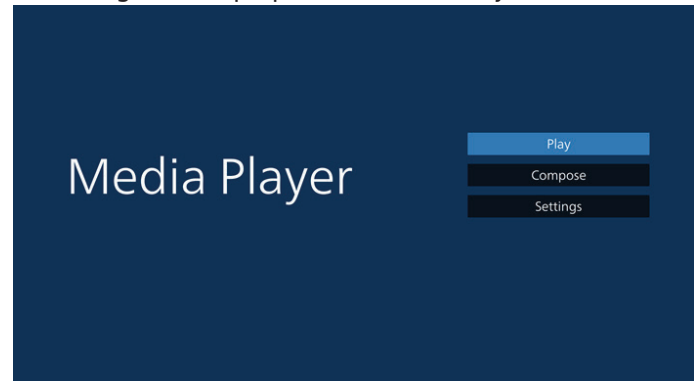
2. Select "Play" on the main page, first you should select one playlist to play between FILE 1 and FILE 7.
    The pencil icon means that the playlist contains the content.
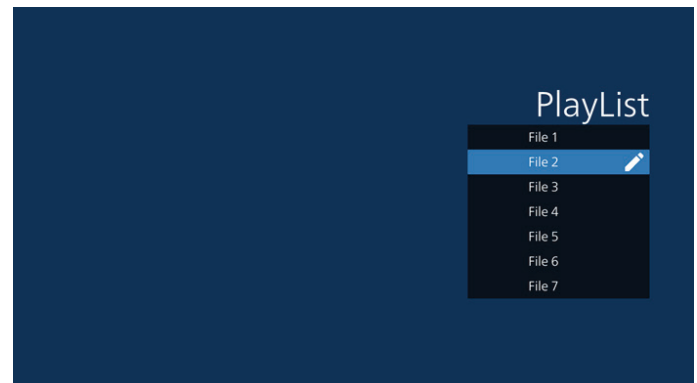
3. Select "Compose" on the main page, first you should select one playlist to edit between FILE 1 and FILE 7.
    The pencil icon means that the playlist contains the content.
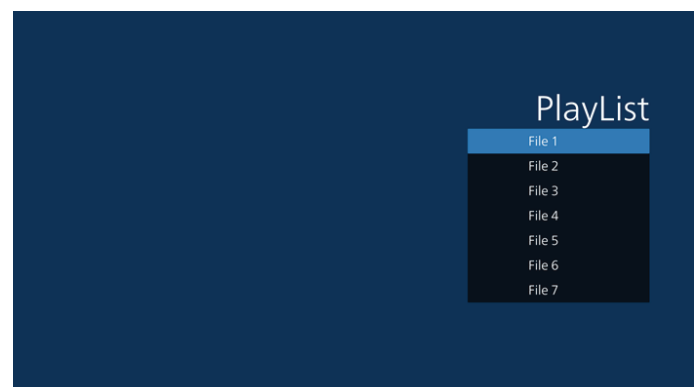
4. If an empty playlist is selected, the App will guide you through selecting the media source.

    All media files should be stored in /philips/ of root directory.
    For example,
    -   videos in /philips/video/
    -   photos in /philips/photo/
    -   music in /philips/music/
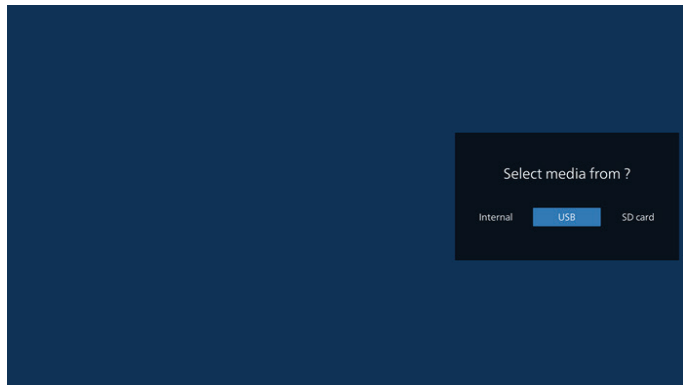
5. If you select "USB" storage, the App will guide you through selecting the USB device.
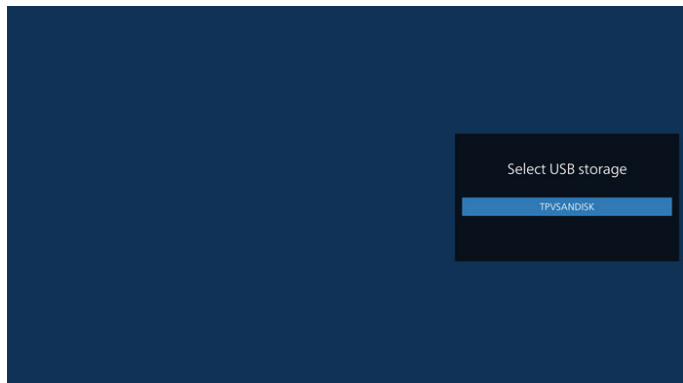

6. To edit or delete a non-empty playlist, select the desired playlist that has a pencil icon on right side of the file.
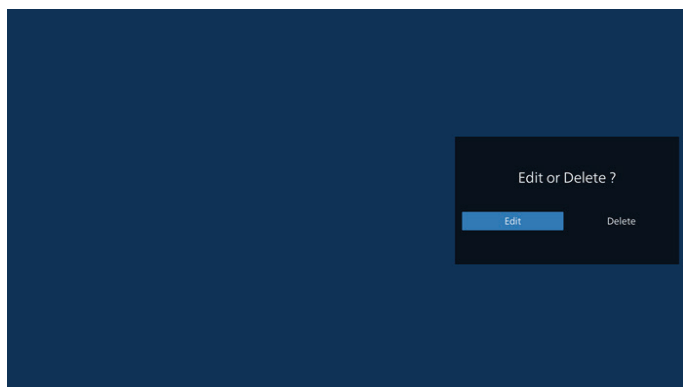
7. Once you start to edit a playlist, you will see below screen.
Source - files in storage.
Playlist – files in playlist.
Option – launch the side menu bar.
Play – play the media file.
Info – show the media information.
Touch file – select/deselect a file.

Note: When long press on one of the directory in Source, full path will be displayed.
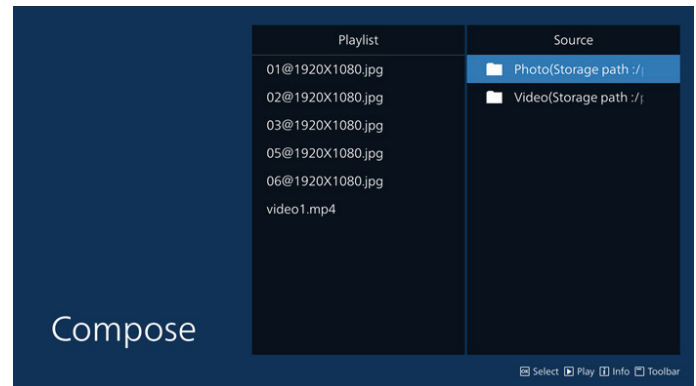
7.1 From the side menu bar, the following functions are available:
- Select all: select all storage files.
- Delete all: delete all playlist files.
- Add/Remove: update playlist from source.
- Sort: sort playlist.
- Save/abort: save or abort playlist.
- Back: return to the previous menu.
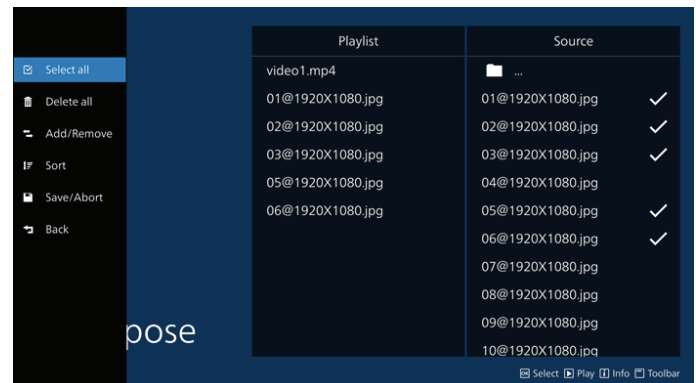
8. If "Sort" is selected, you can customize the file order severally.

Note: When leaving from this page, all data will be saved automatically.
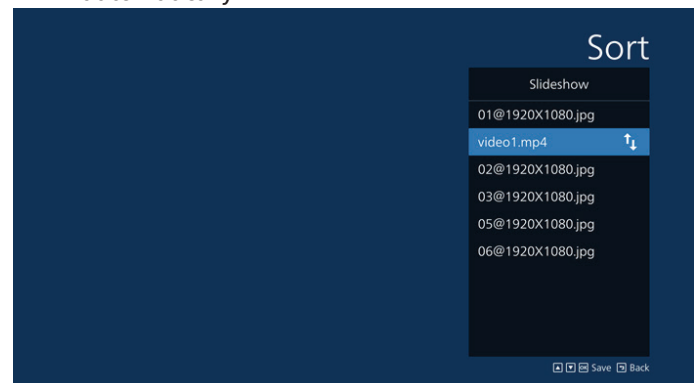
9. After selecting the desired file, press "Info" key to obtain the detailed information.

Info

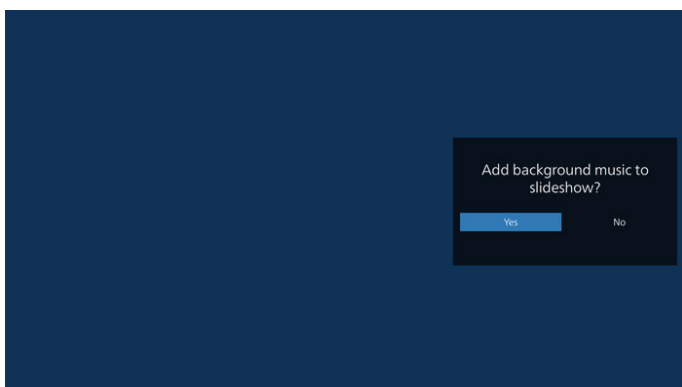|	
File Name :	test_bg.jpg
File Size :	100.57KB
Resolution :	995x557
Type :	image/jpeg

10. After selecting the desired file, press "Play" key to play the media file immediately.

11. If you create a playlist with all image files, you will be asked to add a background music to the slideshow before saving.

Add background music to slideshow?

Yes   No

12. Select "Settings"on the main page, there are 5 options available: "Repeat Mode", "Slideshow Effect", "Effect Duration", "Software Decode" and "Autoplay".
   - Repeat Mode: select repeat once or repeat all.
   - Slideshow Effect: photo slideshow effect.
   - Effect Duration: duration of photo effect.
   - Software Decode: no black screen between video play.
   - Autoplay: Plug in the USB device and it will play the files from USB root path automatically.
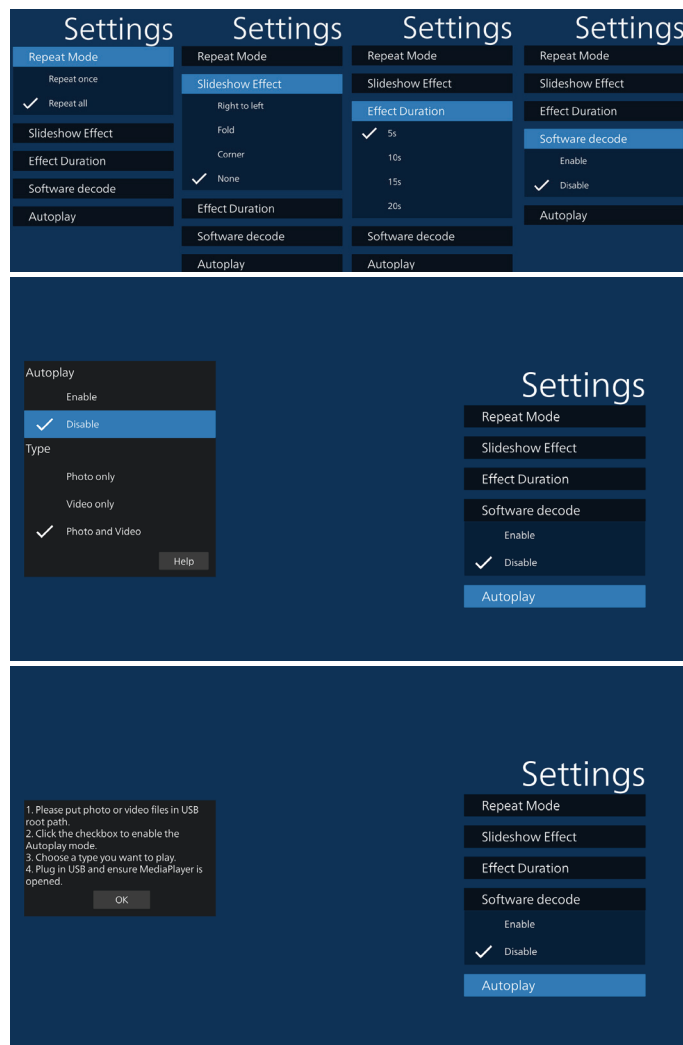
13. Media Player import text file

Step 1. Create media player text file.
   - File name : mpplaylistX.txt, "X" means playlist number(1,2,3,4,5,6,7).
   Ex. mpplaylist1.txt, mpplaylist2.txt
   - Content :


```
1  photo/xxx.jpg
2  video/yyy.mp4
3  music/zzz.mp3
```
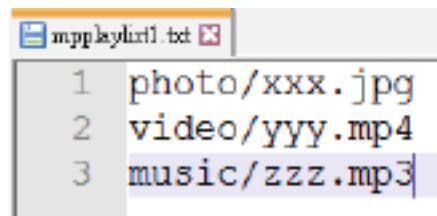
Note: If the playlist contains video and music files, the screen becomes black when playing music file.

Step 2. Copy "mpplaylistX.txt" to "philips" folder of internal storage. You may use FTP to do this.
   - File path : /storage/emulated/legacy/philips (for DL, PL)
   Ex. /storage/emulated/legacy/philips/mpplaylist1.txt

Step 3. Prepare media files to "photo", "video" and "music" folder under "philips" folder, internal storage only.

- Ex. /storage/emulated/legacy/philips/photo/xxx. jpg
  /storage/emulated/legacy/philips/video/yyy. mp4
  /storage/emulated/legacy/philips/photo/zzz. mp3

Step 4. Start media player app, it will automatically import media player text file.

Note: Once the playlist file (text) is imported, if user changes playlist via remote control, this change will not be reflected in the playlist text file.

5.5. Browser

Before using this feature, ensure that the system is connected successfully to the network.

1. Main page of "Browser" App which allows you to make related settings.

2. Press "Compose" then enter the next page.
   Users can choose between 1-7.
   A dialog box appears after the selection is made.
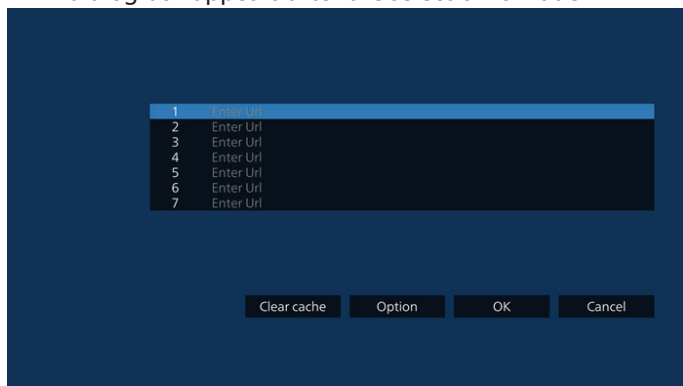
3. Use the on-screen keyboard to enter URL and press the **OK** button, the data will be saved in the List.
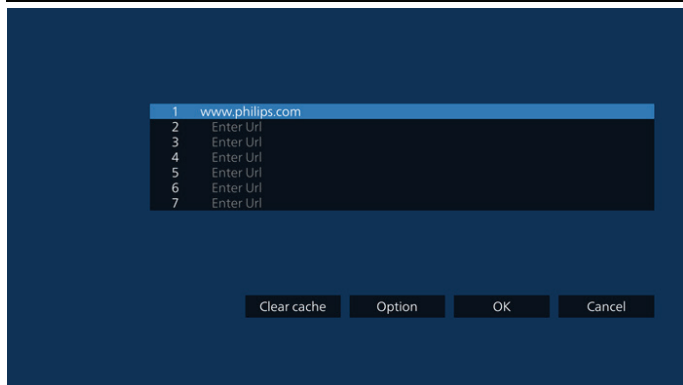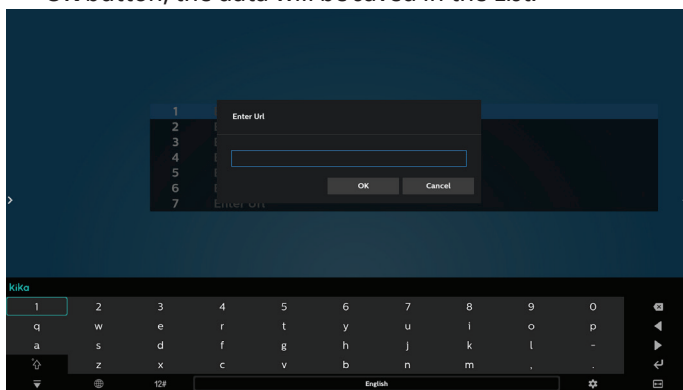
4. Press "Option" and a list will appear on the left side.
   Import: Import the file of URL list
   Export: Export the file of URL list
   Delete all: Delete all URL records from the main screen
   Back: Close the side menu bar
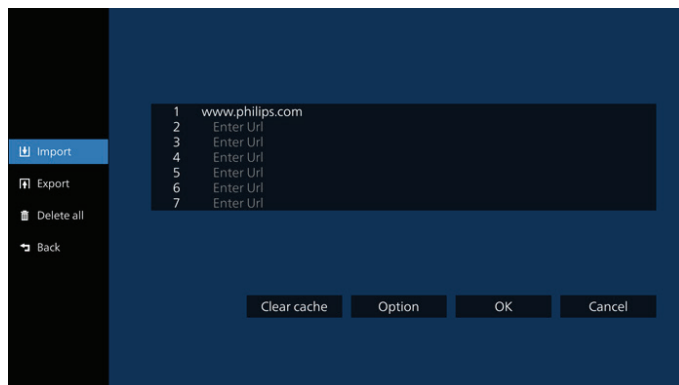
4.1 Import

• Select **import**.
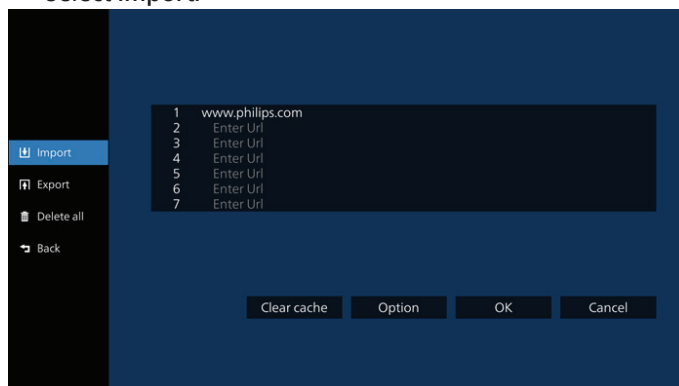
• Select the storage from which the file will be imported.
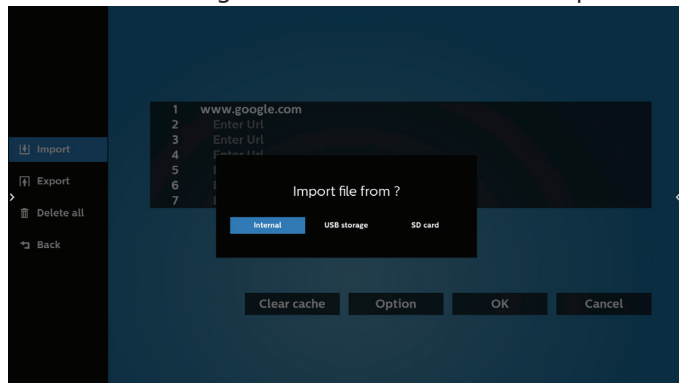
• Select a browser file.

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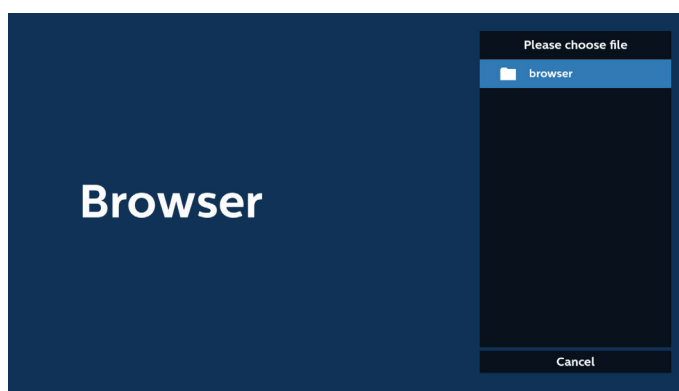
- Import the browser file and the URL will be listed on the screen.
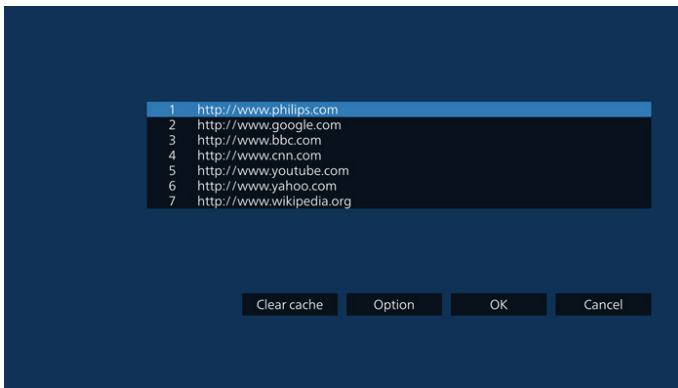
- The file format supported for import is ".txt".
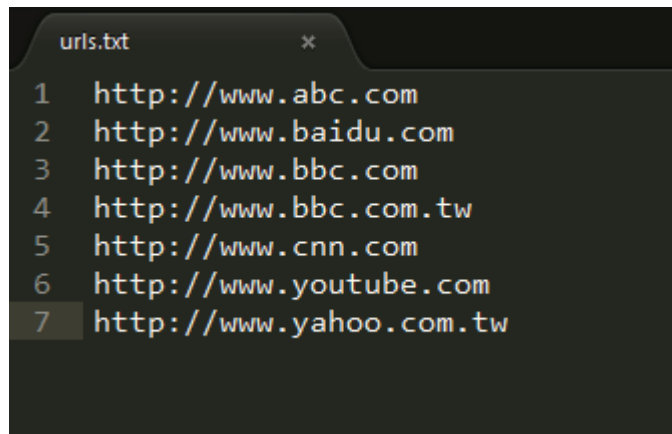
4.2 Export:

- Select **export**.
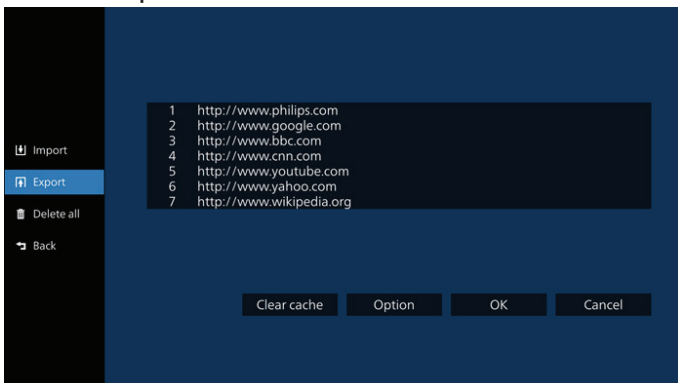
- Select the storage where the file will be exported to.
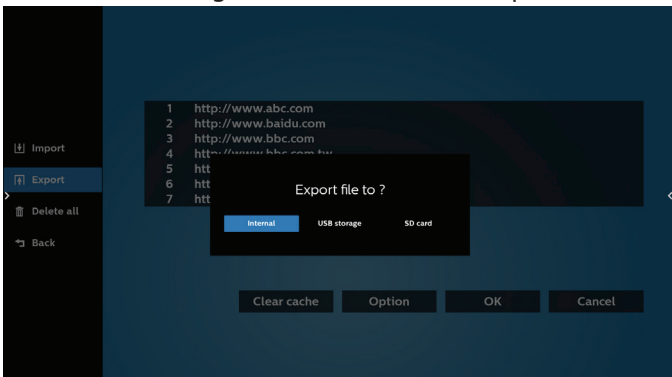
- A dialog box displays the path of the file to be saved as well as the file name. Press the "**Save**" button to save the URL.
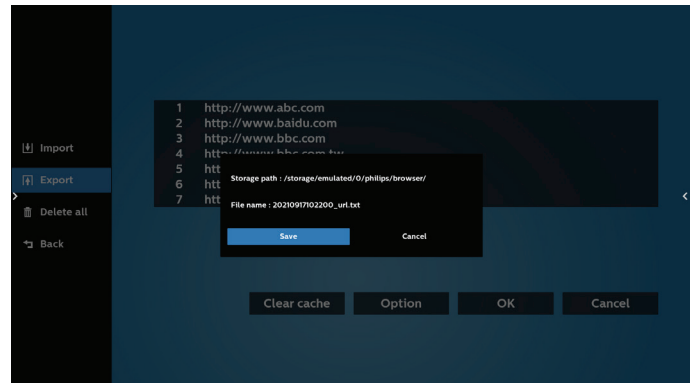
5. Press the "**OK**" button to save the URL record.
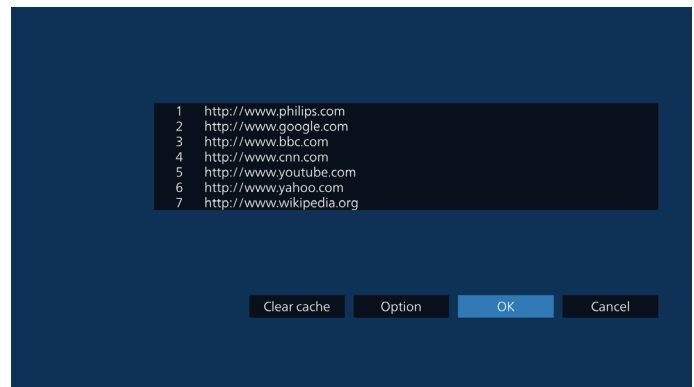
6. If you select a non-empty item from the URL list, a message will appear asking if you want to edit or play the URL. If you select "**Edit**" a dialog box allows you to edit the URL. If you select "**Play**", a web page of the selected URL appears.
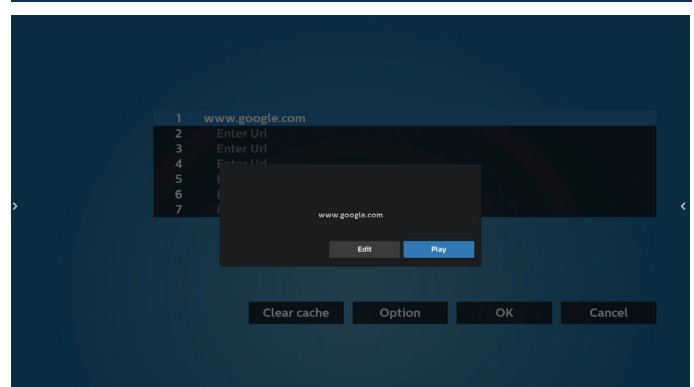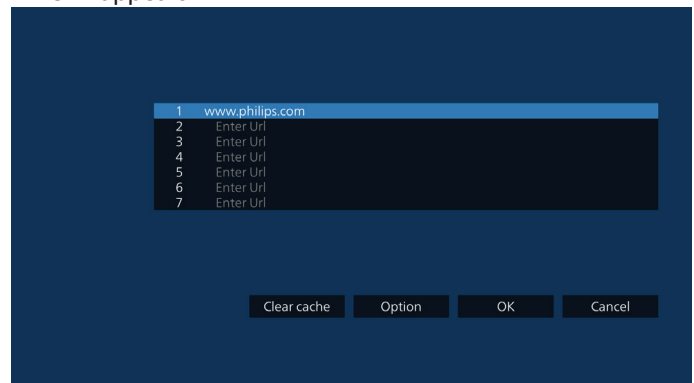
7. Press "Settings" then enter the next page.

Browser

Compose
Settings

Settings
Incognito
Reload
Signage mode
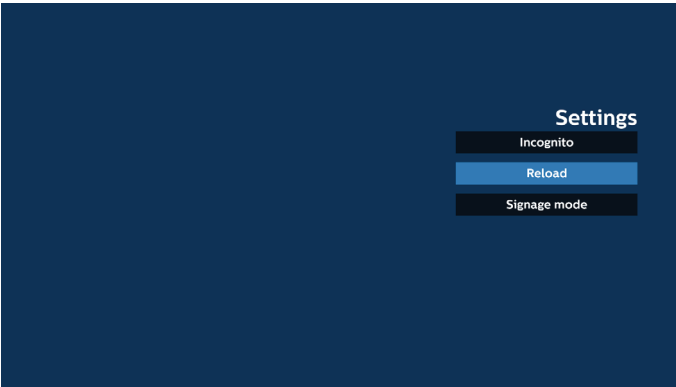
7.1 Incognito

a. Enable: Display webpages using incognito mode.

b. Disable: Display webpages using non-incognito mode.

Settings
Incognito
Enable
✓ Disable
Reload
Signage mode
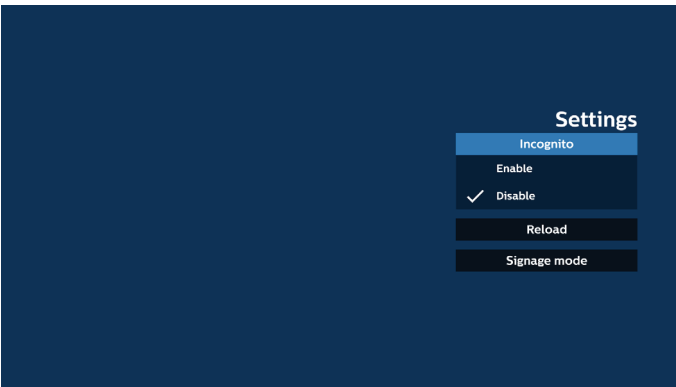
7.2 Reload

Allow user to set the webpage reload time.
a. If the "Enable" checkbox is unchecked, the default reload time is 60 seconds.

Note:
In this case, the webpage only reloads when network state has changed.
If network state is always connected, the webpage won't reload after 60 seconds.

Reload
☐ Enable

Settings
Incognito
Reload
Signage mode
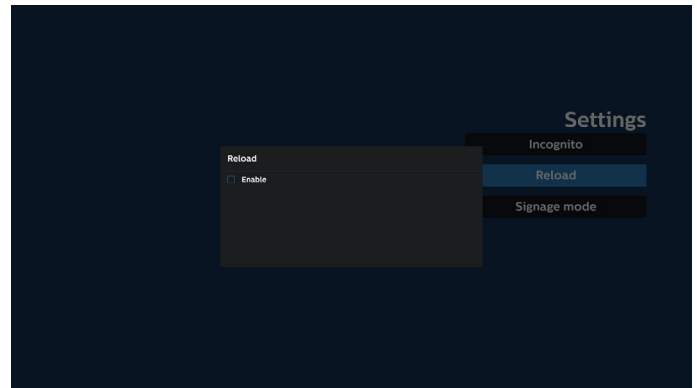
b. If the "Enable" checkbox is checked, you can set the reload time.

Reload
☑ Enable

0 hour (0-24)	0 min (0-59)	0 sec (0-59)

Save   Cancel

Settings
Incognito
Reload
Signage mode
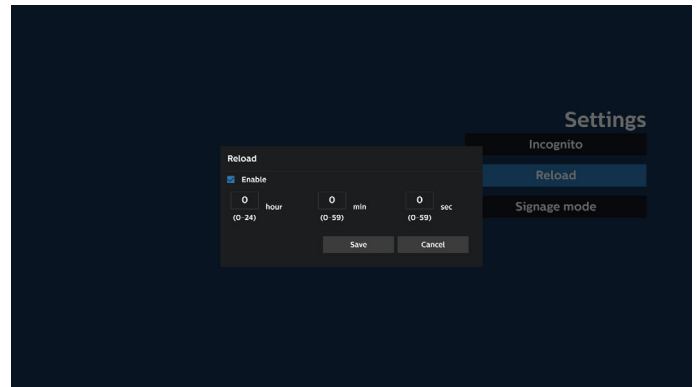
7.3 Signage mode

Enable going back to Browser Compose page when the user returns from another app's activity. Disable keeping Browser screen on the latest webpage. The option is enabled by default.

Open www.google.com and search for "PDF demo file". Click one PDF file in search result, the PDF file will be downloaded and opened. When user presses "Back" button, the screen goes back to Browser Compose page if the option is enabled. The screen goes back to the search result if disabled.

Settings
Incognito
Reload
Signage mode
✓ Enable
Disable
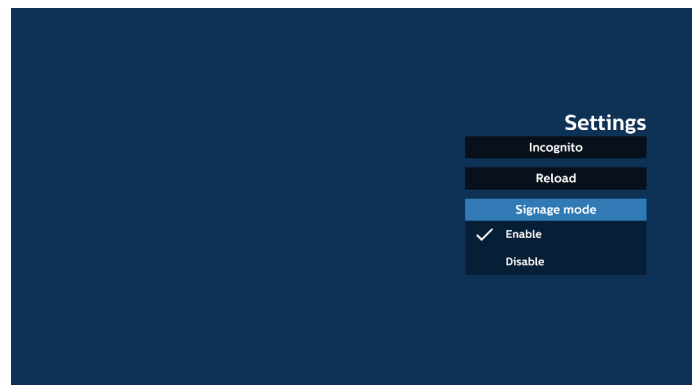
8. OSD menu interaction with Browser

8.1 Boot on source

- Set OSD menu > Configuration1 > Boot on source > set BROWSER Play List to 0.
  Then PD will show Browser after rebooting.
- Set OSD menu > Configuration1 > Boot on source > Input BROWSER Play List to 1.

Then PD will show the web page with 1st URL in Browser app.

8.2 Schedule

Set OSD menu > Advanced option > Schedule >
On time1, Off time2, Browser as input, day of the week and Play List.
Then PD will show the web page with URL in Browser app at time1 and finish at time2.

9. How to edit the URL list via FTP
    Step 1. Create a text file of media player.

    -   File name: bookmarklist.txt.

    -   Content:

    Step 2. Copy bookmarklist.txt to "philips" folder of your internal storage. You may use FTP to do this.

    -   File path: /storage/emulated/legacy/philips (for DL, PL)

    Ex. /storage/emulated/legacy/philips/bookmarklist.txt

    Step 3. Start Browser App, it will import the text file of Browser automatically.

    Note. Once the playlist file (text) is imported, any changes made through the remote control will not be recorded in the playlist text file.

10. Offline browsing
    When an address is set with URL1 and OSD schedule is used to open URL1 web page, browser app will automatically save home web page data of URL1 to local storage.

    If the network is disconnected while the OSD scheduler is opening the browser app, the browser app will automatically open the URL1 address home page from local storage.

    Note:

    a. Browser app can only save URL1 address home page data, data for URL2 to URL7 cannot be saved.

    b. Local storage: /storage/sdcard0/Android/data/org. chromium.chrome/files/Download/OfflineBrowsing

    c. Pressing "Clear cache" button can clear URL1 address home page data from local storage.

5.6. PDF Player

5.6.1. OSD Menu Interaction with PDF Player:

1. Boot on source:
   - Input:
     - ■ If "PDF Player" is selected as the source, it will enter PDF Player page automatically after the boot process is completed.
   - Playlist:
     - ■ Main page: go to the main page of PDF player.
     - ■ Playlist 1 - Playlist 7: go to PDF player and playback File1 - File7 of playlist automatically

2. Schedule:
   - Schedule list:
     - ■ Set up to 7 schedules.
   - Enable:
     - ■ Enable/disable schedule.
   - Start time:
     - ■ Set start time.
   - End time:
     - ■ Set end time.
   - Playlist:
     - ■ 1-7 : go to PDF player and playback File1 - File7 of playlist automatically.
   - Days of the week:
     - ■ Set Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday.
   - Every week:
     - ■ Set a weekly schedule.

5.6.2. PDF Player Introduction:

1. The main page of PDF Player, this page consists of three options: "Play", "Compose" and "Settings".

   Play: select a playlist to play.

   Compose: edit the playlist.

   Settings: set PDF Player properties.
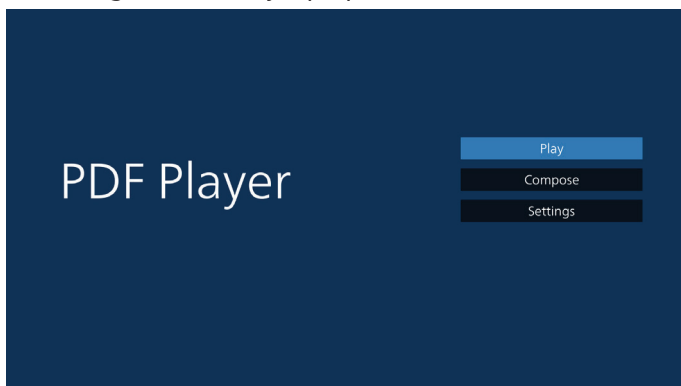
2. Select "Play" on the main page, first you should select one playlist to play between FILE 1 and FILE 7.

   The pencil icon means that the playlist contains the content.
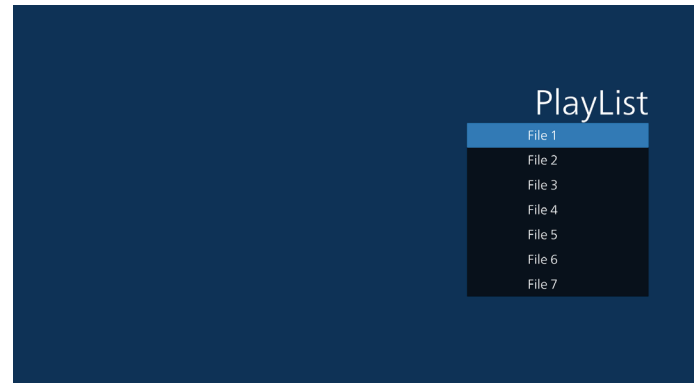
3. Select "Compose" on the main page, first you should select one playlist to edit between FILE 1 and FILE 7.

   The pencil icon means that the playlist contains the content.
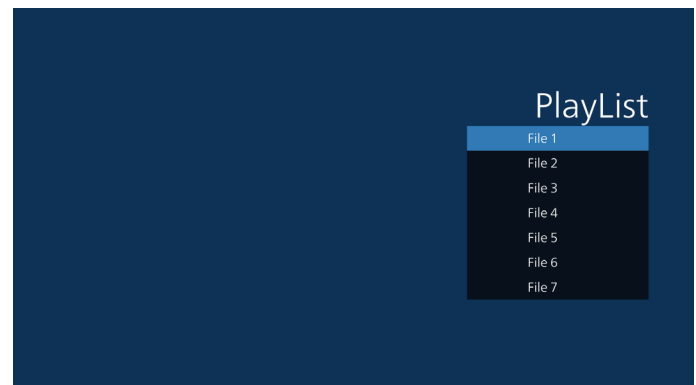
4. If an empty playlist is selected, the App will guide you through selecting the media source.

   All media files should be stored in /philips/ of root directory. For example,

   pdfs : {root dir of storage}/philips/pdf/
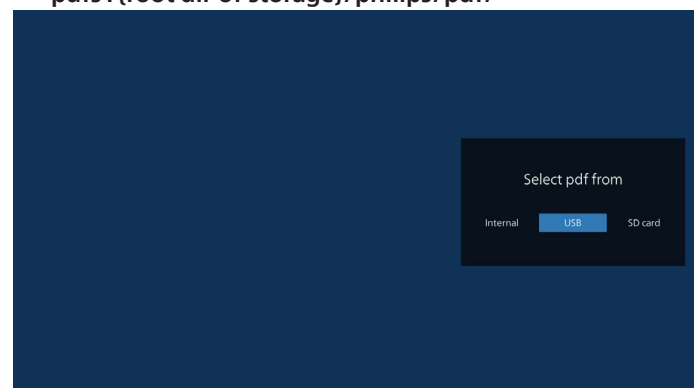
5. To edit or delete a non-empty playlist, select the desired playlist that has a pencil icon on right side of the file.

Edit or Delete ?

Edit   Delete

6. Once you start to edit a playlist, a menu is displayed as below.

Source- files saved in the memory storage.

Playlist– files saved in the playlist.

The following functions can be operated through the corresponding keys on the remote control.
Option key – launch the side menu bar

Play key – play the media file.

Info key – show the media info.

Ok key – select/deselect a file.

6-1. From the side menu bar, the following functions are available:

- Select all: select all files saved in the storage.

- Delete all: delete all playlist files.

- Add/Remove: add or remove a playlist from source.

- Sort: sort the playlist.

- Save/abort: save or abort the playlist.

- Back: return to the previous menu.

	Playlist	Source
☑ Select all	ColorTest2.pdf	📁 PDF(Storage path :/ph
🗑 Delete all		
⇄ Add/Remove		
⊫ Sort		
💾 Save/Abort		
↩ Back		

pose

⊞ Select 🗔 Toolbar

7. If **"Sort"** is selected, you can customize the file order severally.

Sort

Slideshow

ColorTest2.pdf	↑↓
Usb_Host.pdf	
Sample.pdf	
MyPdf.pdf	

◀ ▶ ⊞ Save ↩ Back
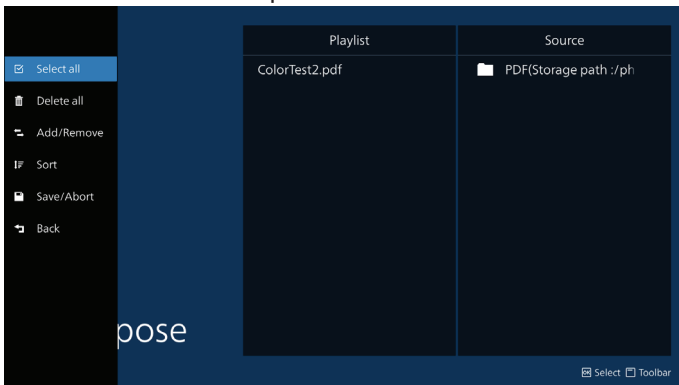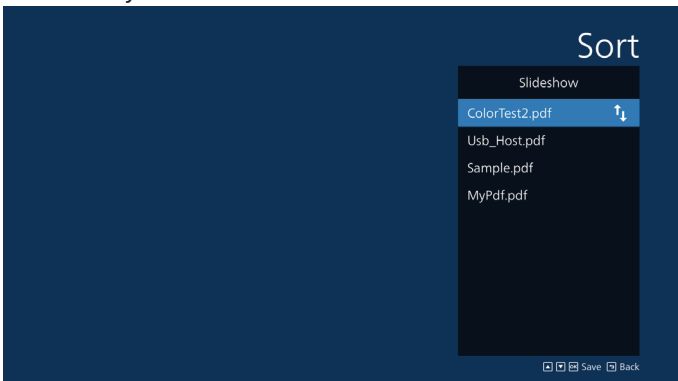
8. Select "Settings" on the main page, there are 2 options available: "Repeat Mode" and "Effect Duration".
Repeat Mode: set the repeat mode.
Effect Duration: duration of photo effect.

Settings

Repeat Mode

  Repeat once
✓ Repeat all

Effect Duration

Settings

Repeat Mode

Effect Duration
✓ 5s
  10s
  15s
  20s
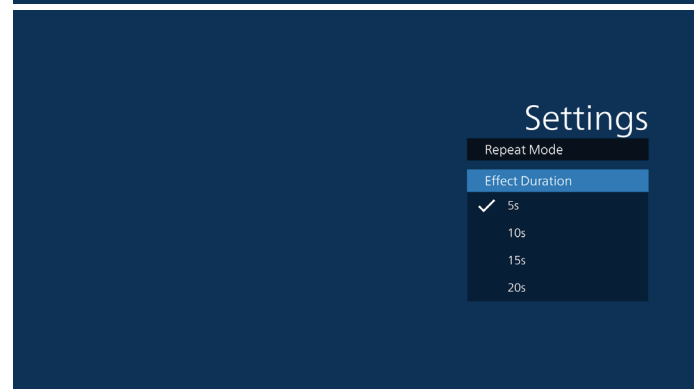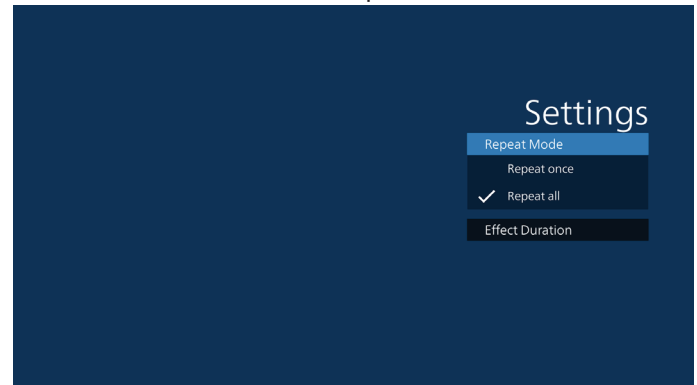
9. How to edit the PDF list via FTP:
Step 1. Create a text file of PDF player.

- File name : pdfplaylistX.txt, "X" means playlist number(1,2,3,4,5,6,7).
Ex. pdfplaylist1.txt, pdfplaylist2.txt

- Content:

📄 pdfplaylist1 .txt ❌

1 pdf/xxx.pdf
2 pdf/yyy.pdf
3 pdf/zzz.pdf
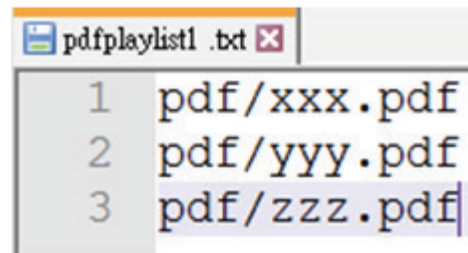
Step 2. Copy pdfplaylistX.txt to "philips" folder of the internal storage. You may use FTP to do this.

- File path : /storage/emulated/legacy/philips (for DL, PL)
Ex. /storage/emulated/legacy/philips/pdfplaylist1.txt

Step 3. Add the PDF files to the "PDF" folder in the "philips" folder of your internal storage.

- Ex. /storage/emulated/legacy/philips/pdf/xxx.pdf
/storage/emulated/legacy/philips/pdf/yyy.pdf
/storage/emulated/legacy/philips/pdf/zzz.pdf

Step 4. Start the PDF player App, it will import the text file of PDF player automatically.

Note: Once the playlist file (text) is imported, any changes made through the remote control will not be recorded in the playlist text file.

Media Hotkey:

Play: play the file.

Pause: pause.

Fast forward: go to the next page. If the page is at end of the file, it will go to the next file.

Rewind: back to the previous page. If the page is at beginning of the file, it will go to the last file.

Stop: return to the first page of file.

Arrow keys:

Left: go to the previous page.

Right: go to the next page.

Combination key:

Number key + OK key: select a specific page and press OK key to change the page.

- Press a number key.

- Press OK key, the page number will be shown at the bottom of the page. If the page number exceeds the total page number, the current page number will remain at the bottom of the page.

Note:

If you plug in two or more USB disks to edit the playlist, playback from the playlist cannot be guaranteed after powering on/off, due to the USB storage path may be changed. It is strongly recommended to use only one USB disk when editing the playlist.

5.7. Custom App

Set up the application for Customer Source.

Note:

(1) It only displays the App installed by user.

(2) System's pre-installed App is not displayed.

5.7.1. OSD Menu Operation:

RCU: Source -> Custom

If you set up customer APK, the customer App will be launched when switching source to customer mode.

If customer APK is not set, the system shows a black screen when switching source to customer mode.
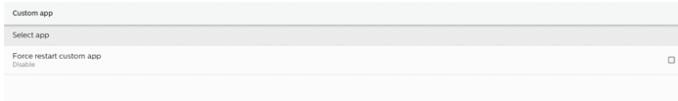
5.7.2. Function Introduction
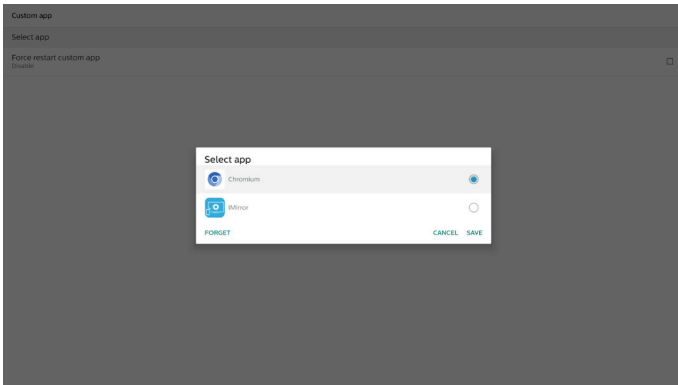
Save

Pressing "Save" will perform the function of storing.

Forget

After pressing "Forget", those previously stored information can be removed.

Cancel

Cancel and close the dialog box.

If there is no customer installed APK, the list will be blank.

If the options are not available, "Save" and "Forget" keys will be shown in gray.

Force restart custom app

If the app is closed due to an exception, the app will be automatically reopened.

6. Setting UI

6.1. Settings

Enter PD settings by clicking "Settings" icon in Admin mode.
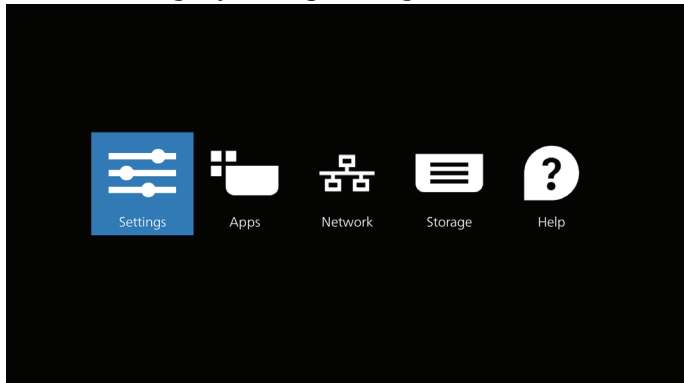
Setting menu consists of the following items:

(1). Network & Internet

(2). Signage Display

(3). Apps

(4). Display

(5). Security

(6). Accessibility

(7). System

(8). About
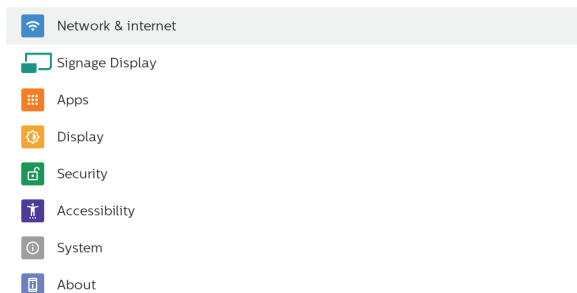
6.2. Network & Internet

Settings for Ethernet.
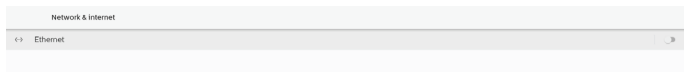
6.2.1. Ethernet

Tap to switch Ethernet between On and Off.
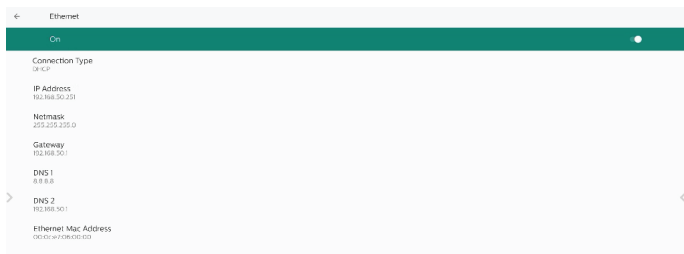
Connection Type

Select connection type from DHCP and Static IP.
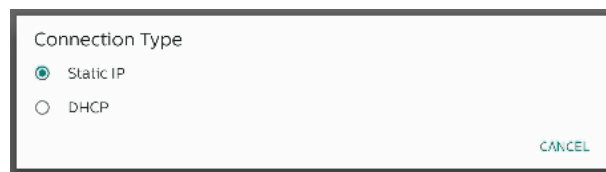
DHCP

The IP Address, Netmask, DNS Address and Gateway settings are assigned by DHCP server, they are not modifiable.
If connection is successful, it will show current network settings.
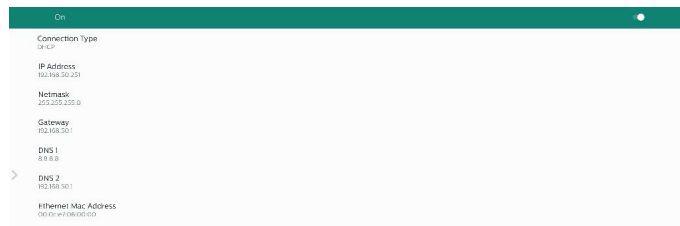
Static IP

User can assign device's IP Address, Netmask, DNS address and Gateway settings of Ethernet in Static IP connection type.

Note:

1. IP address, Netmask, DNS server address and gateway address are necessary.

2. input limitation
   Format: number 0-9, decimal point "."
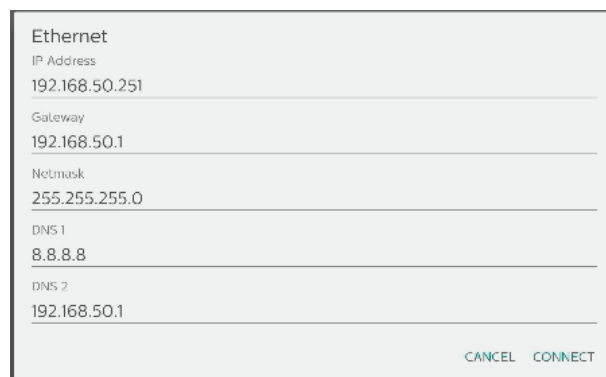
6.3.   Signage Display

Settings for signage display features.
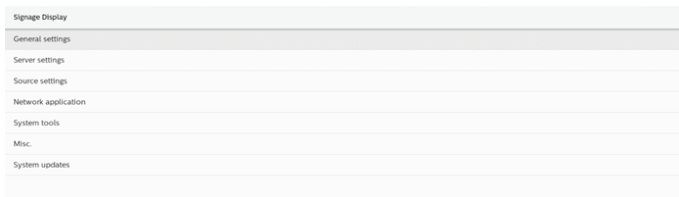
6.3.1. General Settings

Signage Display Name

Default signage display name is "PD_{Ethernet_MAC_Address}". User can change the name with maximum 36 characters in length.
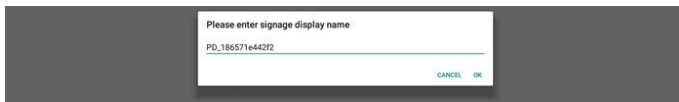
Boot Logo

Set up personal boot animation to show when system powers on. This option is available only when OSD menu -> Configuration -> Logo is set to "User".
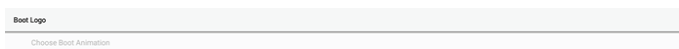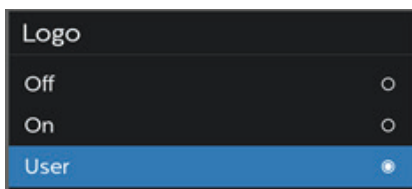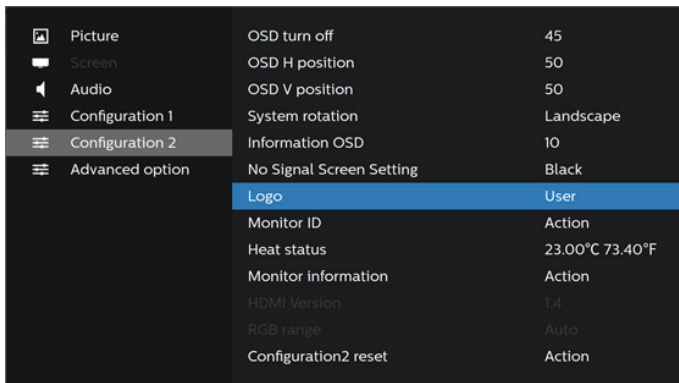
System will search and list "bootanimation.zip" in the root folder's external storage and bootanimation.zip that user saved last time. When "Save" is selected, system will copy the selected file to or overwrite bootanimation.zip file under /data/local/bootanimation/folder.
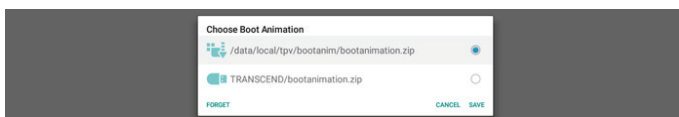
Click "FORGET" to remove the bootanimation.zip already stored in /data/local/bootanimation/ folder.

6.3.1.1. Server Settings

Settings -> Signage Display -> Server Settings
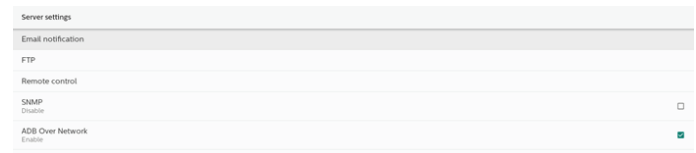
Email Notification

Settings -> Signage Display -> Server Settings -> Email Notification

Click checkbox to enable/disable E-mail notification feature. Set SMTP and manager E-mail after enabling the E-mail notification feature.

SMTP

Setup sender E-mail address and SMTP server information. There are two types of SMTP server for user to set up: "Gmail" and "Other". By using "Other" option, user can manually setup STMP server, security type and server port.

Note:
1. The password should be in UTF8 format with 6 to 20 characters.
2. User cannot set port 5000 (SICP default port) and 2121 (FTP server default port).
    SICP network port setting in "Settings -> Signage Display -> Network Application -> SICP network port".
    FTP network port settings in "Settings -> Signage Display -> Server settings -> FTP -> Port".

Gmail: (SMTP server, Security type and Port are grayed out)

Other:

Gmail Security Settings

If you are using Gmail but cannot sent out E-mail, please check Google Account Security Setting in website: https://www.google.com/settings/security/lesssecureapps. And turn on "Access for less secure apps".

Open a web browser and login into your Google account. Click on "Security" menu (it can be located on the left or at the top of the webpage).
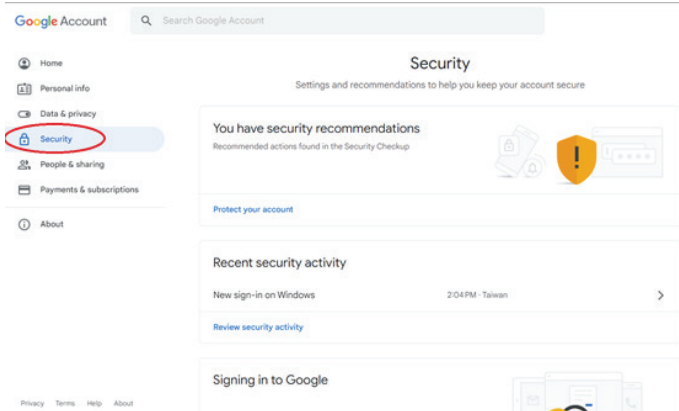
Step 1 - Select "2-Step Verification"

If 2-Step Verification is not turned on, click it to enable it.
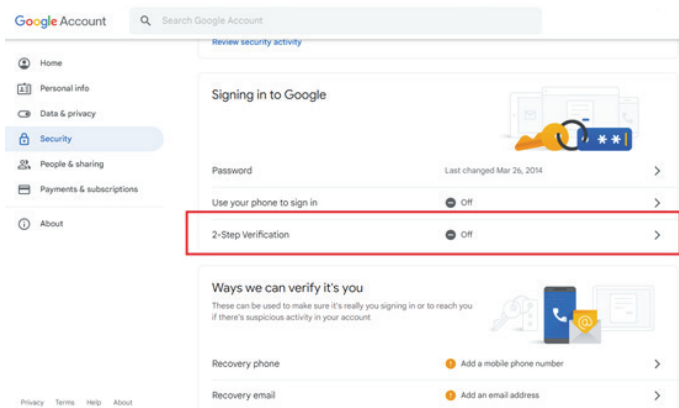
Step 2 - Configure 2-Step verification

Click the "GET STARTED" button to start configuring the 2-step verification options.
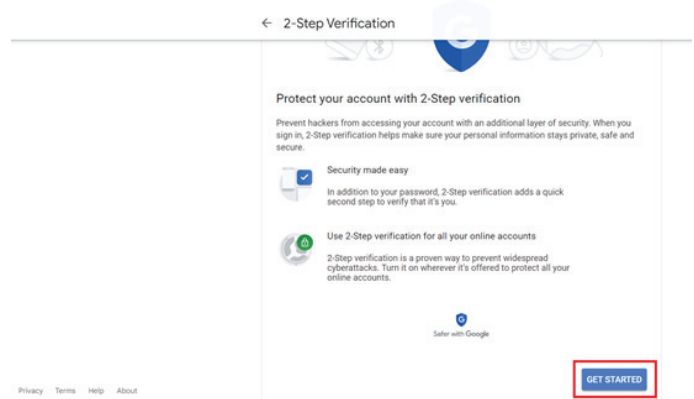
You may be prompted to log in to your Google Account again to confirm it's you:
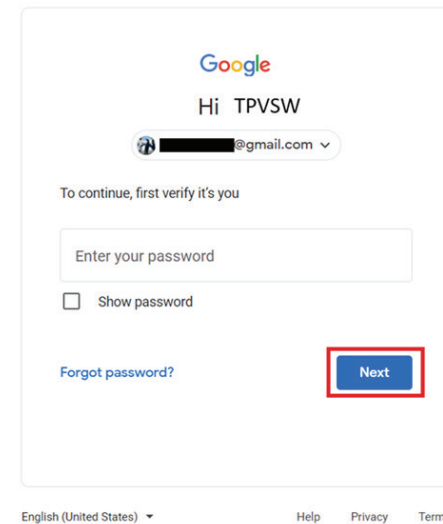
Step 3 - Use your Phone to Complete Configuration

Use on-screen instructions and available options to complete 2-Step verification using your phone.
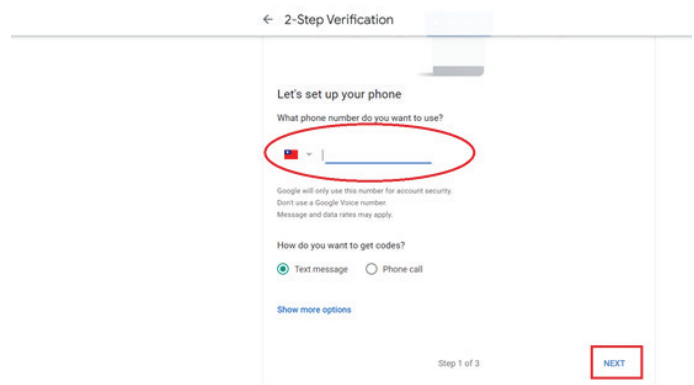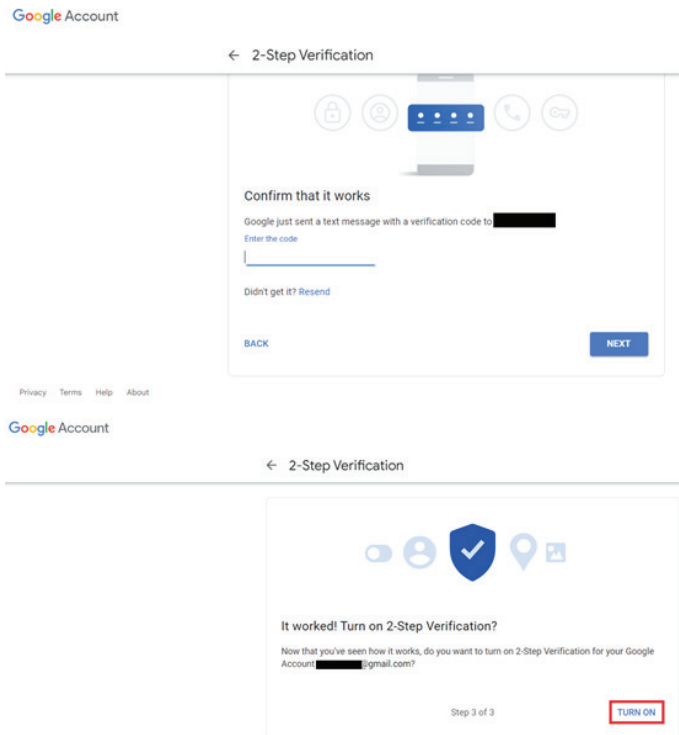
Step 4 - Create the App Password

Click on the "App Password" option to create a new application password:
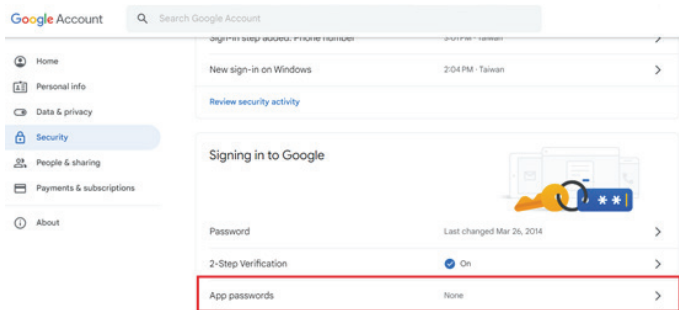
Step 5 - Add New App Name

First, select a device (for example, Windows Computer) and then click on "Select App" menu and choose "Other (custom name)":
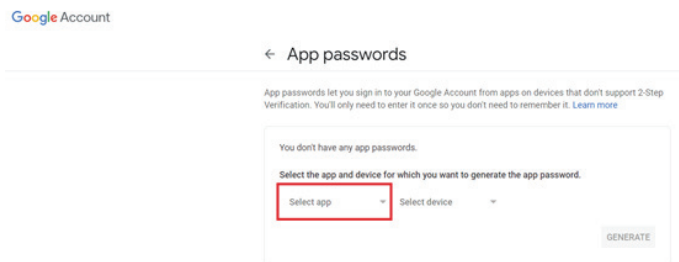
Enter a custom application name (it really does not matter what name is used in this field). Click "Generate" button:

(Ex. Enter "SignageDisplay" as an app name)
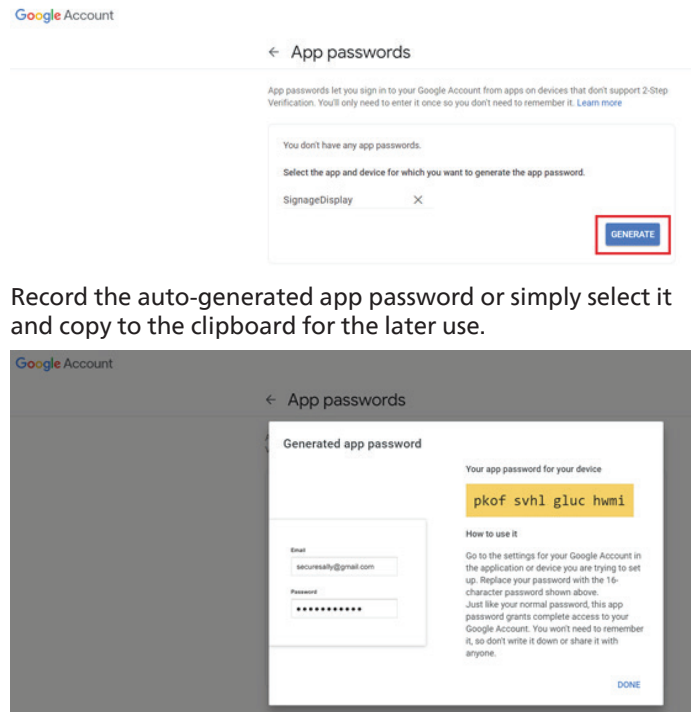
Record the auto-generated app password or simply select it and copy to the clipboard for the later use.
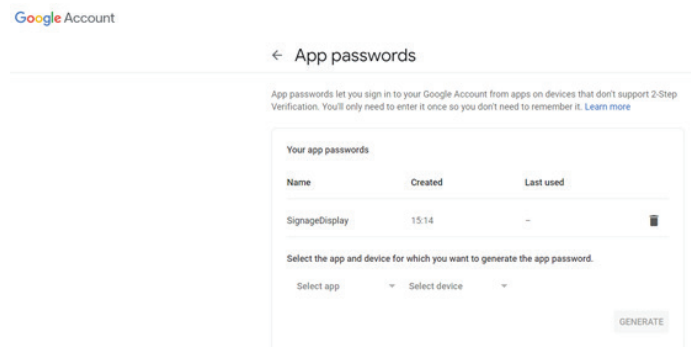
Manager Email

Specify the destination address to receive the e-mail.

Test

To check if your e-mail settings are correct, select "Send Test Mail" to send a test e-mail.

FTP

Settings -> Signage Display -> Server Settings -> FTP

Click the checkbox to enable/disable FTP server feature. After enabling this feature, user can setup account, password and port number.

(1). Account: The user name to log into the FTP server must be between 4 and 20 characters long, and only

alphanumeric characters (a-z, A-Z, 0-9) can be used.

(2). Password: The password to log into the FTP server should be between 6 and 20 characters long, and can only contain the characters [a-z], [A-Z], and [0-9]. After setting the password, it will be displayed as asterisks.

(3). Storage path: The FTP server has access to the internal storage only. The storage path is unchangeable.

(4). Port: The port number for the FTP server is available in the range from 1025 to 65535, the default setting is 2121. The following port number cannot be used:
8000 / 9988 / 15220 / 28123 / 28124 and SICP network port (default 5000).

Finally, manually reboot the system to apply the FTP settings.

Remote Control

Settings -> Signage Display -> Server Settings -> Remote Control

Click the checkbox "Enable" to enable or disable the remote control client service. The default setting is "Enabled". To use the remote control feature, the device must be bound with the remote control server.

In the entry field of "Server", input the URL address with the prefix of "https://". If the device is not bound with the remote control server, please enter the PIN code provided by the server.

Bind status:

(1). If the device does not have an appropriate network connection, a message "Network is disconnected" will appear.

(2). If the device is equipped with a network function, but is not connected to the remote control server, a message "Server is disconnected" will appear.

(3). If a server is connected, but not bound, a message "Server is unbinded" will appear.

(4). If the device is bound with the server successfully, a message "Server is binded" will appear.

(5). If the PIN code is not correct, a message "Error PIN code" will appear.

SNMP

Enable/Disable the SNMP service.
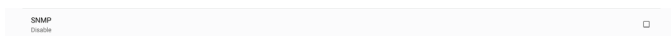
Please refer to the SNMP user manual.

ADB over Network

You can access ADB over a network connection with port 5555.
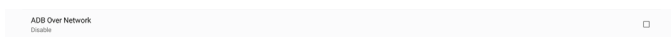
6.3.1.2. Source Settings

Settings -> Signage Display -> Source Settings
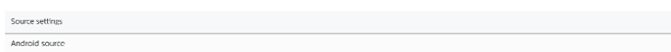
Android Source

User can configure Android source APK's detail options.
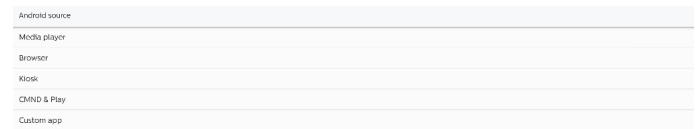
Media Player

Settings -> Signage Display -> Source Settings -> Media Player
Open Media Player APK's edit play list activity and edit effect settings activity.

Browser

Settings -> Signage Display -> Source Settings -> Browser
Open Browser APK's main activity.
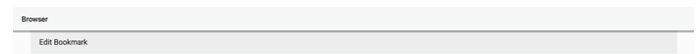
PDF Player

Settings -> Signage Display -> Source Settings -> PDF Player
Open PDF Player APK's edit play list activity and edit effect settings activity.
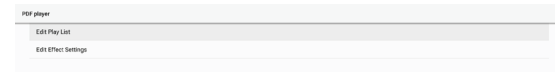
Custom app

Settings -> Signage Display -> Source settings -> Custom app
User can set up customer source APK. The selected APK will be launched when switching into customer input source. If customer source APK is not set, system will show Home screen when switching into customer input source.

Select App

Select specific APP for custom APP source.

If user set up APK for custom app source, it will show APK name. If not, it means that custom App is not configured.

Select specific APP for custom APP source.
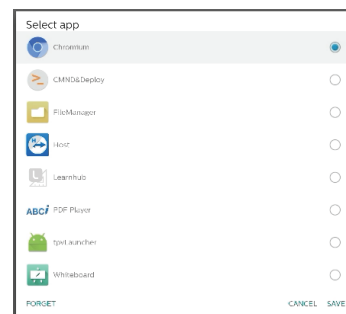
Note:

Most pre-installed APKs will not be shown on the list. It only lists the APKs installed manually by user or removable APKs.

Buttons:

(1). FORGET

Clear custom source application. It turns gray if customer source application is not set.

(2). CANCEL
Cancel and close the dialog.

(3). SAVE
Click SAVE to choose the selected APK as custom source application.

Force Restart Custom APP

System can monitor custom APP is present or crash when "Force Restart Custom App" is enabled. If the custom App is not present and boot on source is set to "Custom App", system will launch custom App again.

Default is disabled.

Force restart custom app
Disable

6.3.2. Network Application

Settings -> Signage Display -> Network Application

Network application
Proxy
SICP network port

Proxy

Settings -> Signage Display -> Network Application -> Proxy

Enable/disable network proxy by tapping "Enable" checkbox. User can set up host IP and port number of the proxy server. Default is disabled.

Proxy
Main Switch
Enable
Enable
Proxy settings
Proxy hostname
Proxy port
Type
HTTP
Authentication
Authentication
Username
Password

System supports the following proxy types: HTTP, HTTPS, SOCKS4, and SOCKS5. Choose one for your proxy server.

Type
HTTP
Type
○ HTTP
○ HTTPS
○ SOCKS4
○ SOCKS5
CANCEL

If authorization with login name and password is required for proxy serer, enable the checkbox for these items.

Authentication
Authentication
Username
Password

SICP Network Port

Settings -> Signage Display -> Network Application -> SICP Network Port

Set up SICP default port and enable/disable network SICP. Default SICP is enabled with port 5000.

Note:

Port number ranges from 1025 ~ 65535.

The following ports are occupied, they cannot be assigned to SICP network port: 8000, 9988, 15220, 28123, 28124 and FTP port (default 2121).

SICP network port
Main Switch
Enable
Enable
SICP network port
SICP network port
5000 (Connected)

6.3.3. System Tools

Settings -> Signage Display -> System Tools

Settings system features for signage display.

(1). Clear Storage
(2). Reset
(3). Auto restart
(4). Import & Export
(5). Clone
(6). Security
(7). Admin Password

System tools
Clear storage
All
Internal storage
USB storage
SD card
Reset
Factory Reset
Auto restart
Auto restart
Import & Export
Export Signage Display Settings
Import Signage Display Settings
Clone
Clone Media Files
Security
External Storage
SD card/USB External Storage Unlock
Admin Password
Enable
Password
Reset Password

Clear Storage

Settings -> Signage Display -> System Tools -> Clear Storage

Clear storage
All
Internal storage
USB storage
SD card

Use to clear all data under {storage}/philips/ folder in internal and external storage

(1). All :
Clear philips/ folder in internal storage, USB and SD card.

(2). Internal Storage
Clear philips/ folder in internal storage only.

(3). USB Storage
Clear philips/ folder in USB storage only.

(4). SD Card
Clear philips/ folder in SD card only.

The folders to be cleared will be listed. Press "RESET" to clear all data under listed folder. Or press back key to leave and do nothing.

Clear storage
This will erase all data , including:
ESD-USB/philips/
RESET

Reset

Settings -> Signage Display -> System Tools -> Reset

Factory Reset

Factory reset allows you to clear all user data and settings. System will auto reboot and jump to OOBE after it is finished.

Important Note:

1. All system data will be erased and cannot be reverted, including device settings, installed APPs, APPs' data, download files, music, photos and all data under /data. However, data in USB storage and SD card will not be cleared, only data from internal storage will be cleared.

2. Please make sure AC adapter and power are both present during factory rest process.
    Power off the system only when OOBE shows on the screen again.

Tap "Factory Reset" and you will be prompted to confirm the reset action. Note that doing so will erase all data from internal storage and this action cannot be reverted.
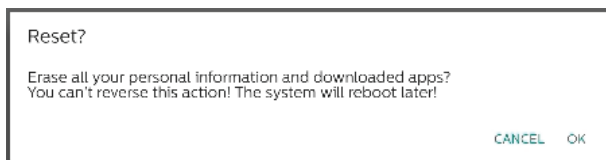
Auto restart

Set a specific time for the system to auto restart everyday.
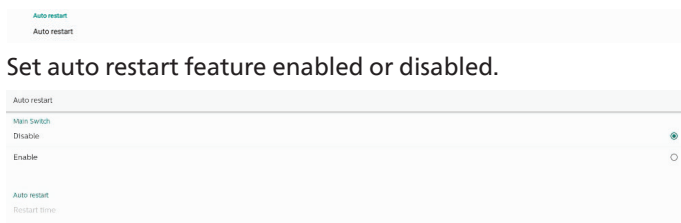
Set auto restart feature enabled or disabled.

Use time picker to set restart time.
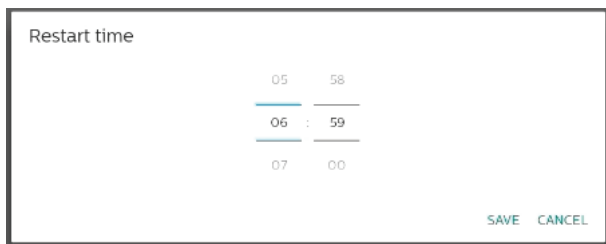
Select "SAVE" and the system will restart at the specified time.

Import & Export

Settings -> Signage Display -> System Tools -> Export & Import

This feature allows you to import database settings and 3rd party APK to other devices. Please note that:

(1). Export data to BDL4050Q-clone.zip file under {storage}/philips/clone folder.

(2). Support old clone files method, and put files under {storage}/philips/sys_backup:

    a. AndroidPDMediaPlayerData.db

    b. AndroidPDURLListData.db

    c. AndroidPDPdfData.db

    d. menu_settings.db

    e. runtime-permissions.xml

    f. settings_global.xml

    g. settings_secure.xml

    h. settings_system.xml

    i. signage_settings.db

    j. smartcms.db

The latest exported data will be archived into ZIP file.

(3). "Signage Display Name" will not be imported.

Export Signage Display Settings

System exports database data and third party APKs into {storage}/philips/clone/ BDL4050Q-clone.zip file in the selected storage (internal storage, SD card or USB storage).
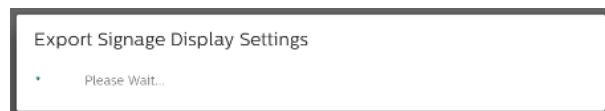
Note:

If the selected storage (internal storage, USB or SD card external storage) does not contain philips/ folder, the system will create it automatically.

All available storage medium are listed for user to select.
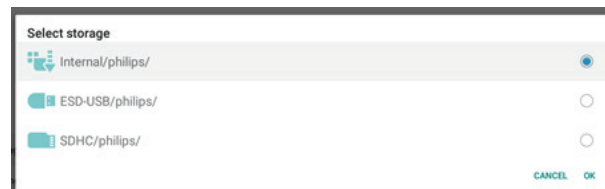
Import Signage Display Settings

Import database data from philips/clone/BDL4050Q-clone. zip file of selected storage (internal Storage, SD Card or USB storage). System imports the following data in ZIP file:

(1). Import Database in BDL4050Q-clone.zip

(2). Import 3rd party APK in BDL4050Q-clone.zip

All available storage medium are listed (internal storage, USB and SD card).

A dialog box appears to ask user to confirm importing operation. Click "OK" to start importing data.
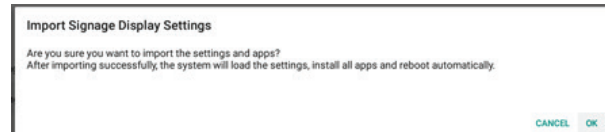
Clone

Settings -> Signage Display -> System Tools -> Clone

Clone Media Files

Clone media files from the selected source storage to target storage.

(1). System clone files under the following list of folder:

    a. philips/photo

    b. philips/music

    c. philips/video

    d. philips/cms

    e. philips/pdf

    f. philips/browser

(2). Clone CMS files (file extension is ".cms"):

    a. Source storage
Source is internal storage.
Check if there is CMS file in FTP.
If there is no CMS file in FTP, check philips/ folder in source storage.
Source is external storage (SD card or USB storage)
Check CMS file in root directory of storage.

    b. Target storage
Target is internal storage.
CMS file will be saved to philips/ folder.
Target is external storage (SD card or USB storage)
CMS file will be saved to root directory of storage.
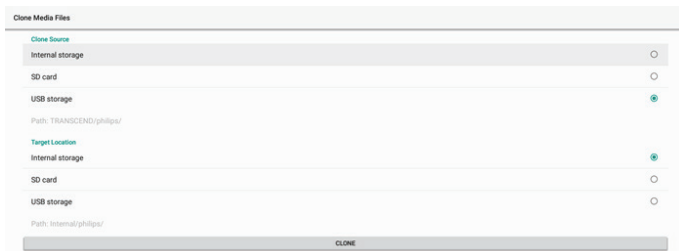
Security

External Storage Lock

Click the checkbox to lock or unlock external storage (SD card and USB storage). Default is unlocked.

Note:

When you disable external storage lock for enable state, please unplug and plugin external storage again (for both SD card and USB storage). After that, system can detect external storage again.

Admin Password

Settings -> Signage Display -> System tools -> Admin Password
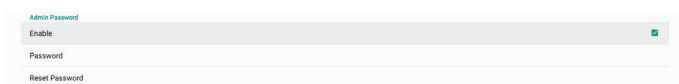
Enable

Enable or disable Admin Password. Default is disable.
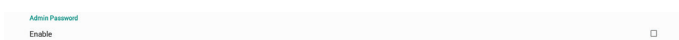
(1). Unchecked: Disable.

(2). Checked: Enable.

Note:
After enabling, you need password to login Admin Mode. Default password is "1234".

Password

Settings -> Signage Display -> System tools -> Admin Password -> Password.

User can change the password for login Admin Mode. Follow the steps below:

(1). Enter the current password first. Default password is "1234".

If the current password is not correct, you will see an "Incorrect password" toast message.

(2). Enter a new password.

(3). Enter the new password again.

Try again if the new password is not correct.

If the password is changed successfully, you will see a "Successful" toast message.
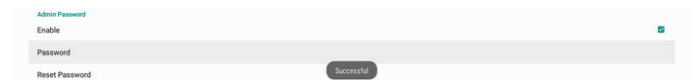
Reset password

Settings -> Signage Display -> System tools -> Admin Password -> Reset Password.

Reset the password to default "1234". If succeed, you will see a "Successful" toast message.

6.3.4. Misc.

Misc.
TeamViewer Support
Enable
Enable logging
Disable
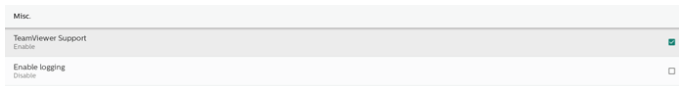
TeamViewer support

Click the checkbox to enable or disable TeamViewer support. TeamViewer will send a virtual HOME key to open Admin mode. Default is enable.

TeamViewerHost and TeamViewerQSAddOn APKs will auto install into system. Otherwise, system will remove them if user disable "TeamViewer Support".

The following APK will be listed in Settings->Apps if TeamViewer support is enabled.

Host
30.38 MB

TeamViewer Add-On Philips 24BDL
4.64 MB
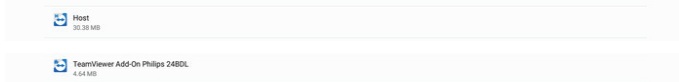
Enable logging

Enable or disable logging with checkbox.

Once enabled, PD will start logging android logical log, kernel message and saved them into USB or internal storage automatically. The first priority is USB storage. if there are no any connected usb devices on PD, all data will then saved into internal storage.

The saved path will be: {root directory of USB storage}/ philips/Log/xxBDL4050Q-Log-{ yyyy-MM-dd-HH-mm-ss }

Or {root directory of internal storage}/ philips/Log/ xxBDL4050Q-Log-{ yyyy-MM-dd-HH-mm-ss }

Enable PD Logging
Disable
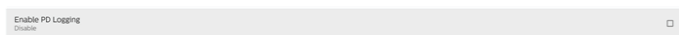
If disabling logging, all data will be saved to a zip file like: {root directory of USB storage}/ philips/Log/xxBDL4050Q-Log-{ yyyy-MM-dd-HH-mm-ss }.zip

Or {root directory of internal storate}/ philips/Log/ xxBDL4650D-Log-{ yyyy-MM-dd-HH-mm-ss }.zip

6.3.5. System updates

System updates
Local update
Remote update
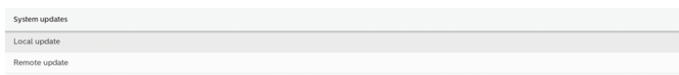
Local update

Settings -> Signage Display -> System updates -> Local update

System will auto search "update.zip" in root folder of external storage. If system found "update.zip" in external storage, a list appears for user to select the file for an update.

After selecting the file from the list, system will reboot and do system update.

Please note that:
    a. Keep the system power alive during system update, do not remove power adapter.
    b. Currently system only supports full Android update.
    c. The update file must be named as "update.zip" only.
    d. The "update.zip" file must be located in root folder of external storage.

Remote update

Please keep the network connected and available. Choose "Latest" or "Download code" to download the "update.zip" to root folder from Remote FW server. If choose "Download code" need to input 10 digits which get from Remote FW server.

Remote update
  ◉ Latest
  ○ Download code
                              CANCEL   OK

Remote update
  ○ Latest
  ◉ Download code
  _____
                              CANCEL   OK

Click "OK", it may waiting around 5 minutes to download "update.zip" according to network speed. If the download is successful, the system will automatically transfer to the "Local update" process. System will reboot and do system update. Please note that:
    a. Keep system power alive during system update, do not remove power adapter.
    a. Currently system only support full Android update.

6.4. Apps

Application information and notification settings for installed application in the system.

Apps & notifications
                              Recently opened apps
   tpvLauncher   SmartCMS   Kiosk
   1 min. ago   2 min. ago   2 min. ago
                      SEE ALL 23 APPS
Notifications
On for all apps
Default apps
Permission manager
Apps using storage and location
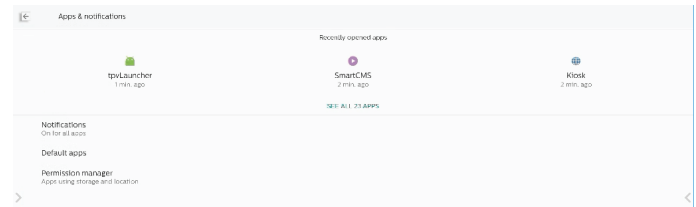
6.4.1. See All Apps

List all applications installed in the system, check current settings and information for each App. Such as notification, permission, storage & cache, network usage and other settings.

6.5. Display

6.5.1. Font Size

Set system default font size.
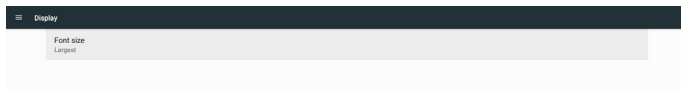
Adjust system font size by dragging the slide bar, default is "Largest".
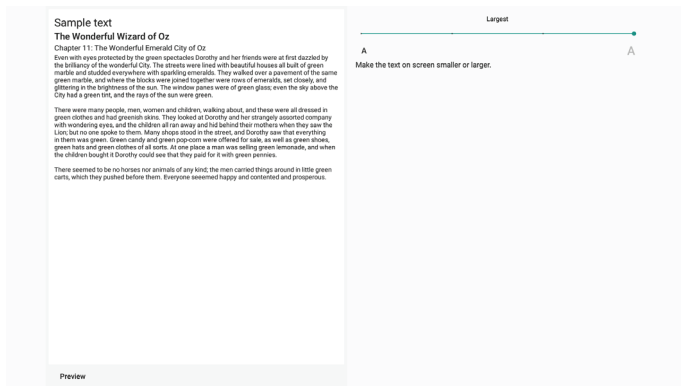
6.6. Security

Settings->Security
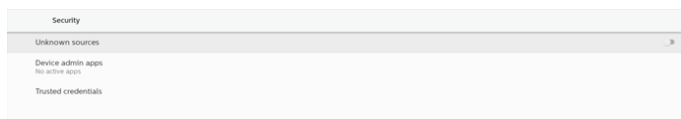
6.6.1. Unknown Sources

Allowing app installs from Unknown Sources in Android.

6.6.2. Device Admin Apps

A list showing the app that supports admin-related operations and controls.

6.6.3. Trusted Credentials

This will display a list of all trusted credentials on the device.

6.7. Accessibility

Accessibility services are apps that can help users with disabilities or special needs to interact with their Android device more easily.

In the Downloaded apps menu, you can view all the accessibility apps that are installed on the device, and enable or disable them as needed. You can also access the settings for each individual accessibility app by tapping on its name in the list.

6.8. System

Input method and developer options of Android system.
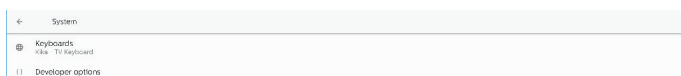
6.8.1. Keyboards

Control software keyboards and physical keyboards.
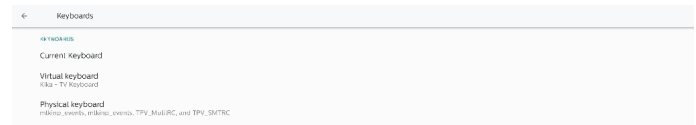
6.8.2. Current Keyboard

List all available keyboards to set up default keyboard.
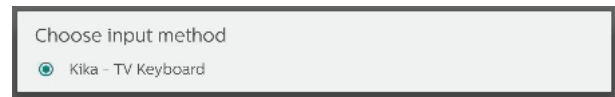
6.8.3. Virtual Keyboard

Control each IME detail settings. Manage keyboards to enable or disable IMEs. If the system has only one IME installed, user cannot disable it. At last one IME in system is necessary.
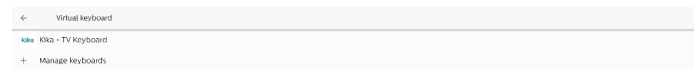
6.8.4. Physical Keyboard

Settings of physical keyboard.
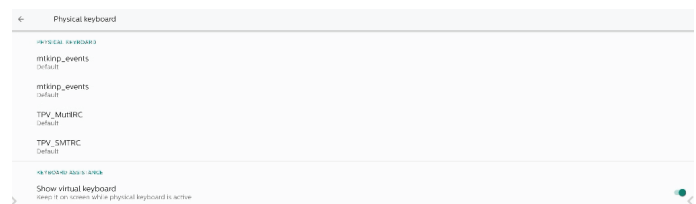
6.8.5. Developer Options

Android system developer options for engineer development.
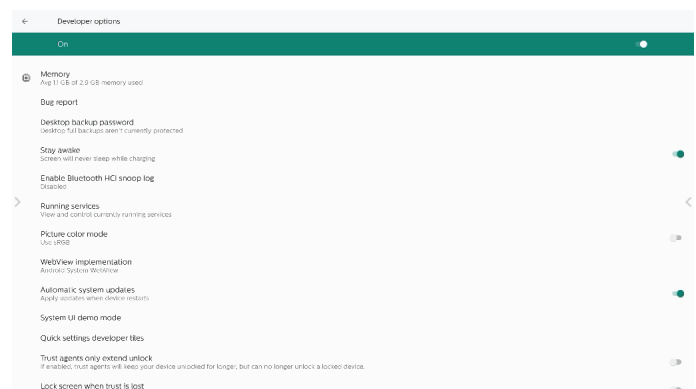
6.9. About

Following information shows in about page:

(1) Legal information

(2) Model (model name of this device)

(3) Android version

(4) Build number (release version)

About

Legal Information

Model
Model: 55BDL3650Q

Android version
10

Build number
FB01.05

Legal Information

List all open source projects legal information and licenses here.

Legal Information

About Open Source License

Third-party licenses

System WebView licenses

Model

Model

Model
55BDL3650Q

Serial number
unknown

Android version

Android version

Android version
10

Android security patch level
October 5, 2021

Kernel version
4.19.116+
#77 Mon Mar 13 11:20:32 CST 2023

Build number
FB01.05

6.10. Supplementary

6.10.1. Quick Info

Press "Info + 77" to startup quick info.

Quick info will show "Network" and "Monitor Information".

Note:

Operation hours: updates every minute.

Heat status : updates every 5 seconds.

6.10.2. How to custom an Android boot animation

1. Overview

The Android boot animation is a script used to load PNG files when the device boots. It is included in an uncompressed zip file called bootanimation.zip.

2. In the bootanimation.zip file

The bootanimation.zip as follows:

- The image folder (contains PNG images named in incremental numbers)
- The desc.txt file
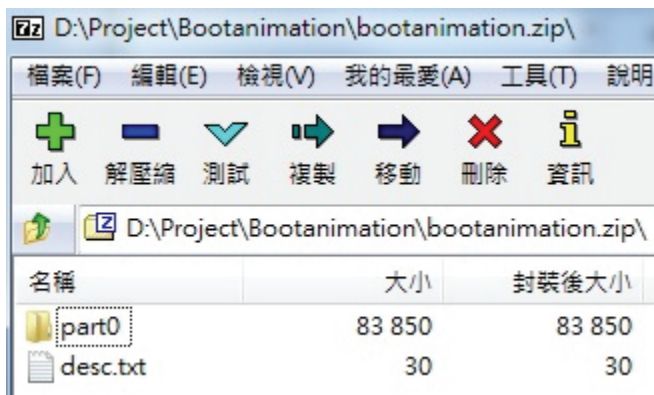
(1) The image folder

This folder contains PNG images that are named by numbers, starting from something like 0000.png or 0001.png and increasing by increments of 1. The minimum number of folder is 1 and the maximum number of folder is unlimited.

(2) The desc.txt file

This file defines how the images in the folder(s) are displayed during the boot animation, in the following format:

- Width Height Frame-rate
- mode Loop delay-time Folder1
- mode Loop delay-time Folder2

An example of a desc.txt file is:

- 1920 1080 30
- p 1 0 part0
- p 0 0 part1

  a. The first line

  1920 and 1080 define the width and height of the screen resolution.

  30 is the frame rate in fps (frames per second) i.e. number of images to display per second.

  b. The second and third lines have a same format.

  The first "p" means that the play mode stops immediately when the boot process is complete.

  The number next to 'p' defines the repeat mode

  - Set to 0 to make the part loop indefinitely until the device boot is complete.
  - Set to 1 to make the part playback for once.

  The next number defines the delay time(ms). For example, if it is set to 10, the system will be delayed for 10ms when all image files have finished playing.

  Part0 and part1 refer to image folder names.

As to the above example, the boot animation will play at a resolution of 1920 by 1080 pixels, at a frame rate of 30 fps, starting with the contents of part0 folder. After playing them in one loop, switch to the contents of part1 folder and play them continuously until the device boot process is complete.

3. Zip file:

Select all (including image folders and desc.txt) inside the Bootanimation folder and zip them into a new uncompressed zip archive using your favorite compression utility such as 7zip or WinRAR and so on.

If using 7zip, set compression level to "Store".
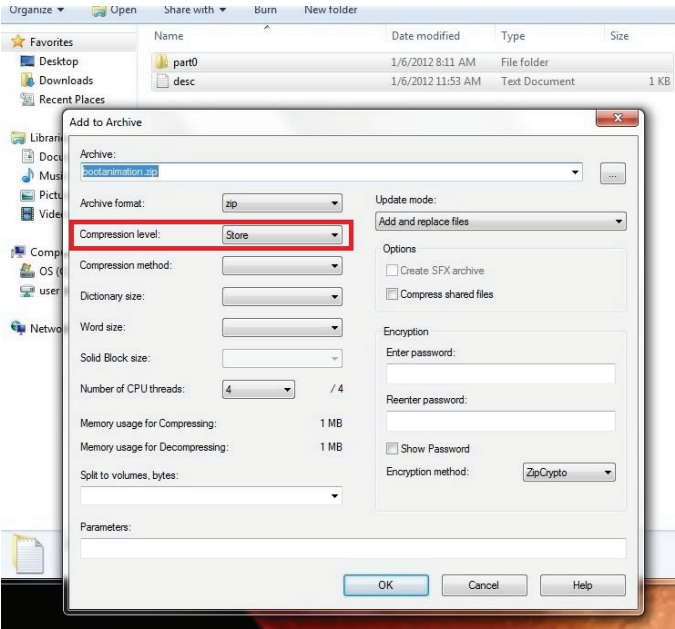
If using WinRAR, set "Compression method" to "Store".
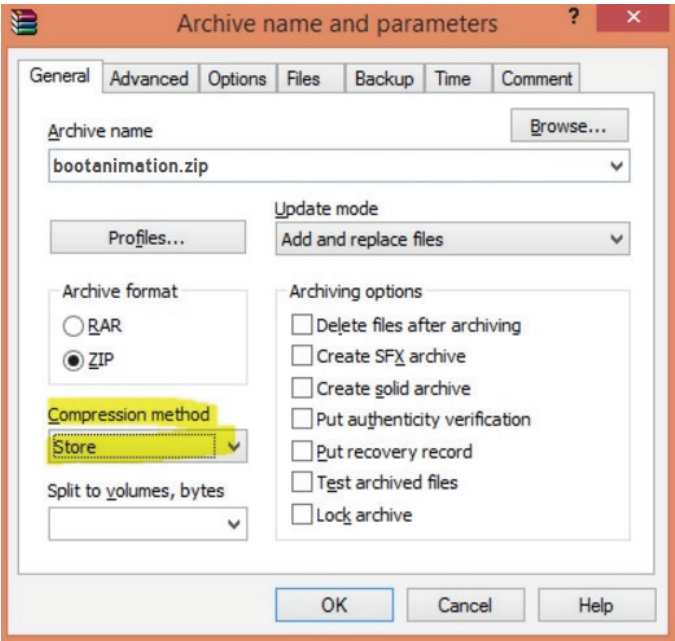
or bootanimation WON'T work.

4. Apply the custom bootanimation

Procedure:

(1) Place your custom bootanimztion.zip file into the external USB and plug the storage device into Phillips PD platform.

(2) Make sure that the Logo option is enabled.

Press the Home key on the RCU: OSD menu > Configuration 2 > Logo > set "User"

(3) Press the combination key "Home + 1888" on the RCU to go to Admin mode:

Settings > Signage Display > General settings > Boot Logo > Choose Boot Animation

(4) The system will search the bootanimation.zip on the external USB automatically and copy it to /data/local

(5) Once the step 1~4 are complete, restart the system. The new customized boot animation should be displayed during boot time.

6.10.3. How to Install Android app

There are 3 ways to install your own Android App.

(a) Via File Manager in Admin Mode

1. If you have apk already

1.1 Copy your APK to the USB disk, and plug the storage device into Philips Android Signage Display.

1.2 Go to Admin Mode > Apps > File Manager

1.3 Use File Manager to find your APK to be installed. Simply press "OK" on the selected APK.

2. Download an APK using the Chromium browser, then go to <internal storage path>/Download/ by File Manager.

2.1 The next steps are the same as described above. Please note, each model may have different <internal storage path>.

(b) Via Adb Shell

1. Make sure that your PC can connect to Philips Android Signage Display using adb.

2. Prepare your apk in a folder (for example, C:\apkfolder) on your PC.

3. Execute the following instruction using command line tool.

C:\apkfolder> adb install -r apk_name.apk

(c) Via Customized Intent

1. If you develop an apk that can download any Android App, then your APK can issue a customized intent.

2. Giving that the apk name and the path have been stored., the system will help you to install by program.

Description	Intent	Parameters	
Sw Update	php.intent. action. UPDATE_APK	filePath	The absolute file path including the file name. Please make sure that the file access permission is 664 at least.
		keep	Indicate that you want to keep the file or not after updating. The default value is false.
		packageName	The target package you want to launch automatically after updating.
		activityName	The target activity you want to launch automatically after updating. But if current top activity is not activityName, nothing happened.
		isAllowDowngrade	"true: update apk no matter the version of target apk is lower than the verion of current one or not. false: stop install if it is downgrade."

For example,

```
Intent intent = new Intent();
intent.setAction("php.intent.action.UPDATE_APK");
intent.putExtra("filePath", "/Download/sample.apk");
intent.putExtra("keep", true);
intent.putExtra("packageName", "com.tpv.example");
intent.putExtra("activityName", "com.tpv.example.
MainActivity");
intent.putExtra("isAllowDowngrade", true); // allow
downgrade
sendBroadcast(intent);
```

7.   OSD Menu

An overview of the On-Screen Display (OSD) structure is shown below. You can use it as a reference for further adjustment of your display.

7.1.   Navigating the OSD Menu

7.1.1. Navigating the OSD menu using the remote control
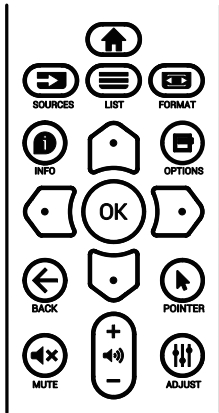
1. Press [🏠] button on the remote control to display the OSD menu.

2. Press [⌂] or [⌄] button to select the item to adjust.

3. Press **[OK]** or [▷] button to enter the submenu.

4. In the submenu, press [⌂] or [⌄] button to toggle between items, press [◁] or [▷] button to adjust the settings. If there is a submenu, press **[OK]** or [▷] button to enter the submenu.

5. Press [←] button to return to the previous menu, or press [🏠]button to exit from the OSD menu.

7.1.2. Navigating the OSD menu using the display's control buttons

1. Press [MENU] button to display the OSD menu.
2. Press [十] or [—] button to select the item to adjust.
3. Press [十] button to enter the submenu.
4. In the submenu, press [▲] or [▼] button to toggle between items, press [十] or [—] button to adjust the settings. If there is a submenu, press [十] button to enter the submenu.
5. Press [MENU] button to return to the previous menu, or keep pressing [MENU] button to exit from the OSD menu.

7.2.   OSD Menu Overview

7.2.1. Picture Menu

Brightness

Adjust the brightness of this display's backlight.

Contrast

Adjust the contrast ratio for the input signal.

NOTE: VIDEO source only

Sharpness

Adjust the sharpness to improve the image detail.

Black level

Video black level is defined as the level of brightness at the darkest (black) part of a visual image. Adjust the black level of this display.

Tint (Hue)

Adjust tint of the screen.

Press [▷] button to make the tone color greenish. Press [◁] button to make the tone color purplish.

NOTE: This item applies to Video mode(YUV color space) only.

Color (Saturation)

Adjust the intensity of colors in the image.

NOTE: This item applies to Video mode(YUV color space) only.

Noise reduction

Reduce picture noise. You can select a suitable noise reduction level.

The options are: {Off} / {Low} / {Medium} / {High}.

NOTE: This item applies to VGA input only.

Gamma selection

Gamma is what controls the overall brightness of an image. Images which are not corrected properly can appear too white or too dark, so controlling the gamma properly can have a huge influence on the overall picture quality of your display.

The options are: {Native} / {2.2} / {2.4} / {S gamma} / {D-image}.

Color temperature

Select a color temperature for the image. A lower color temperature will have a reddish tint, while a higher color temperature gives off a more bluish tint.

The options are: {3000K} / {4000K} / {5000K} / {6500K} / {7500K} / {9300K} / {10000K} / {Native} / {User 1} / {User 2}.

Color Control

You can adjust the color tones of the image precisely by changing the User-R (Red), User-G (Green) and User-B (Blue) settings independently.

{Picture} - {Color temperature} - {User} setting to [User 1]

Or, you can adjust the color tones per 100K in the range of 2000K to 10000K.

{Picture} - {Color temperature} - {User} setting to [User 2]

Smart power

Set the display to reduce the power consumption automatically.

The options are: {Off} / {Medium} / {High}.

Overscan

Change the display area of the image.

- {On} - Display about 95% of the original size of the image. The rest of the areas surrounding the image will be cut off.
- {Off} - Display the image in its original size.

Picture reset

Reset all settings in the Picture menu.

7.2.2. Screen Menu

🖼 Picture	H position	50
💻 Screen	V position	50
🔊 Audio	Clock	127
⇄ Configuration 1	Clock phase	31
⇄ Configuration 2	Zoom mode	Full
⇄ Advanced option	Auto adjust	Action
	Screen reset	Action

H position

Press the [▷] button to move the image to the right, or [◁] to move the image to the left.

NOTES:

- H position adjustment applies to VGA input only.
- H position cannot be adjusted when {Pixel Shift} is activated.

V position

Press the [▷] button to move the image up, or [◁] to move the image down.

NOTES:

- V position adjustment applies to VGA input only.
- V position cannot be adjusted when {Pixel Shift} is activated.

Clock

Adjust the width of the image.

NOTE: This item applies to VGA input only.
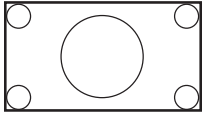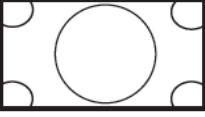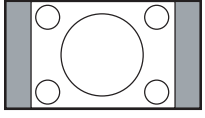
Clock phase

Adjust to improve the focus, clarity and stability of the image.

NOTE: This item applies to VGA input only.

Zoom mode

Choose one for video input: {Full} / {Real} / {4:3}.

	Full This mode restores the correct proportions of pictures transmitted in 16:9 using the full screen display.
	Real This mode displays the image pixel-by-pixel on screen without scaling the original image size.
	4:3 The picture is reproduced in 4:3 format and a black band is displayed on either side of the picture.

Auto adjust

Press "Set" to detect and adjust H position, V position, Clock, Phase automatically.

NOTE: VGA input only.

Screen reset

Reset all settings in the Screen menu to factory preset values.

7.2.3. Audio Menu

🖼 Picture	Balance	50
💻 Screen	Treble	50
🔊 Audio	Bass	50
⇄ Configuration 1	Volume	20
⇄ Configuration 2	Audio Out (Line Out)	20
⇄ Advanced option	Maximum Volume	100
	Minimum Volume	0
	Mute	Off
	Audio reset	Action
	Audio Out Sync	Off
	Speaker Setting	On

Balance

Adjust to emphasize left or right audio output balance.

Treble

Adjust to increase or decrease higher-pitched sounds.

Bass

Adjust to increase or decrease lower-pitched sounds.

Volume

Adjust the volume.

Audio Out (line out)

Adjust to increase or decrease line out output level.

Maximum volume

Adjust your own limitation for the maximum volume setting. This stops the volume at the sound level you set.

Minimum volume

Adjust your own limitation for the minimum volume setting.

Mute

Turn the mute function on/off.

Audio reset

Reset all settings in the Audio menu to factory preset values.

Audio Out Sync

Line out volume sync with internal speaker Volume.

{On}: Enable the function and gray out Audio Out (line out) Volume.

{Off}: Disable the function.

Speaker Setting

Turn the internal speaker on/off.

NOTE: This function is only available when {Sync. Volume} is on.

7.2.4. Configuration 1 Menu

🖼	Picture	Switch on state	Force on
🖥	Screen	Panel saving	Action
🔊	Audio	RS232 routing	RS232
⇄	**Configuration 1**	Boot on source	Action
⇄	Configuration 2	WOL	Off
⇄	Advanced option	Light sensor	Off
		Human sensor	Off
		Configuration1 reset	Action
		Factory reset	Action

Switch on state

Select the display status that will be applied when you connect the power cord next time.

- {Power off} - The display will remain off when the power cord is connected to a wall outlet.
- {Forced on} - The display will turn on when the power cord is connected to a wall outlet.
- {Last status} - The display will return to the previous power status (on/off/standby) when removing and replacing the power cord.

Panel saving

Enable or disable the panel saving functions and thus reduce the risk of "image persistence" or "ghost-imaging".

- {Brightness} - Select {On} and the image brightness will be reduced to an appropriate level. The Brightness setting in the Picture menu will be unavailable when selected.
- {Pixel shift} - Select the time interval ({Auto} / {10 ~ 900} seconds / {Off}) for the display to slightly expand the image size and shift the position of pixels in four directions (up, down, left, or right). Activating Pixel Shift will disable H Position, V Position and Zoom Mode in the screen menu.

RS232 routing

Select the network control port.

The options are: {RS232} / {LAN ->RS232}.

Boot on source

Choose to select a source when boot up.

- Input: select input source when boot up.
- Playlist: select playlist index for Media player, Browser, PDF player.
- 0: no play list. Same as switching source from OSD.
- 1~7: playlist number.
- USB Autoplay: auto play option for Media Player.

WOL (Wake on LAN)

Choose to turn on or off the wake on LAN function.

Choose from : {Off} / { On}

Light sensor

Choose to turn on or off backlight adjustment according to environment brightness.

Choose from : {Off} / { On}

Human sensor

The Human sensor can detect if people approach the display or not.

The display will turn off backlight if it detects nothing in setting time.

The display will return to backlight on when people approach the display.

The options are: {Off} (Default), {10 Min.}, {20 Min.}, {30 Min.}, {40 Min.}, {50 Min.}, {60 Min.}

Configuration 1 reset

Reset all settings in Configuration 1 menu to factory preset values.

Factory Reset

Reset all settings in the OSD menu of {Picture}, {Screen}, {Audio}, {PIP}, {Configuration1}, {Configuration2} and {Advanced option} to the factory preset values.

Press [◁] or [▷] button to select {Reset}, and press [OK] button to perform the reset.

7.2.5. Configuration 2 Menu

🖼	Picture	OSD turn off	45
🖥	Screen	OSD H position	50
🔊	Audio	OSD V position	50
⇄	Configuration 1	System rotation	Landscape
⇄	**Configuration 2**	Information OSD	10
⇄	Advanced option	No Signal Screen Settings	Black
		Logo	On
		Monitor ID	Action
		Heat status	24.21°C 75.57°F
		Monitor information	Action
		HDMI Version	1.4
		RGB range	Auto
		Configuration2 reset	Action

OSD turn off

Set the period of time the OSD (on-screen display) menu stays on the screen.

The options are: {0 ~ 120} seconds.

OSD H position

Adjust the horizontal position of the OSD menu.

OSD V position

Adjust the vertical position of the OSD menu.

System rotation

Change screen to Landscape / Portrait mode.

Note: Rotate the display (PD) 90 degrees counterclockwise.

Information OSD

Set the period of time the information OSD display on the upper left corner of the screen. The information OSD will display when input source and signal are changed.

The options are {Off, 1 - 60} seconds.

No Signal Screen Settings
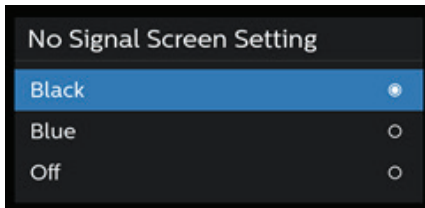
Black : Change background color to black when no signal detected.

Blue : Change background color to blue when no signal detected.

Off : Turn off no signal dialog and change background color to black.

Logo

Choose to enable or disable the picture of Logo when turning on your display.

The options are:

- {Off}
- {On}
- {User}

NOTE: If it is set to {USER}, the rotation function is not supported for user logo.

Monitor ID

Set ID number for controlling the display via the RS232 connection. Each display must have a unique ID number when multiple sets of display are connected. Monitor ID number range is between 1 to 255.

Heat Status

Current thermal status.

Monitor information

Shows information about your display, including model name, SW version, serial number, and operation hours.

HDMI version

Set the HDMI version to 1.2 or 1.4 or 2.0.

Note: HDMI input source only.

RGB range

Change RGB range: Auto, Full (PC) or Limited (Video).
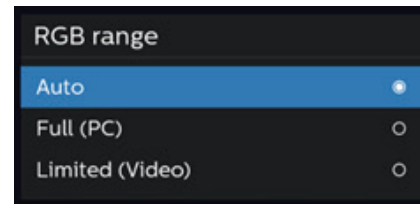
Note: In Android and VGA source do not support.
    The Sharpness, Tint, Color are invalid in Full or Limited mode.

Configuration 2 reset

Reset all settings in Configuration 2 menu to factory preset values.

7.2.6. Advanced Option Menu

IR control

Select the operation mode of the remote control when multiple displays are connected via RS232 connection.

- {Unlock} - All displays can be operated normally by the remote control unit.
- {Primary} - Designate this display as the primary display for remote control operation. Only this display can be operated by the remote control. (In primary mode, IR key will always be processed regardless of the monitor ID/ group settings).
- {Secondary} - Designate this display as the secondary display. This display cannot be operated by the remote

control, and will only receive the control signal from the primary display via RS232 connection.

- {Lock All} / {Lock all but Volume} / {Lock all but Power} / {Lock all except PWR &VOL} - Lock the remote control function of this display. To unlock, press and hold the INFO button on the remote control for 6 (six) seconds.

Power LED light

Choose to set power indication LED on or off.

Choose {On} for normal use.

Keyboard control

Select to enable or disable the display keyboard (control buttons) function.

- {Unlock} - Enable the keyboard function.
- {Lock All} / {Lock all but Volume} / {Lock all but Power} / {Lock all except PWR & VOL} - Disable the keyboard function.

NOTE: To enable or disable the keyboard control lock, press [＋] and [⌂] buttons simultaneously and keep pressing continuously for more than 3 seconds.

Tiling

Create a single large-screen matrix (video wall) that consists of up to 9 sets of the display (up to 3-sets on the vertical and 3-sets on the horizontal sides). This function requires daisy-chain connection.

- **H monitors**: Select the number of displays in horizontal side.
- **V monitors:** Select the number of displays in vertical side.
- **Position:** Select the position of this display in the screen matrix.

H monitors

1	2	3
4	5	6
7	8	9

V monitors

Position
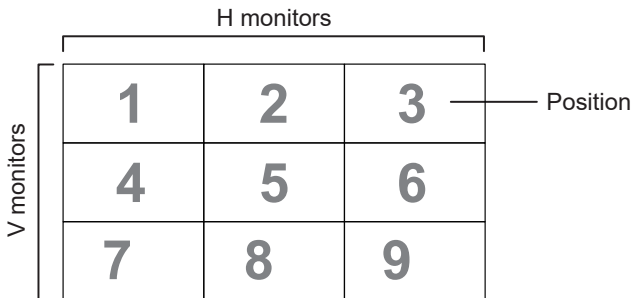
- **Frame comp.:** Turn frame compensation function on and off. The display adjusts the image to compensate the width of display bezels for accurately display the image.
- **Enable:** Check to enable tiling function.
- **Switch on Delay:** Set the power-on delaying time (in seconds). Default option {Auto} allows a sequential powering-on for each display by monitor ID when multiple displays are connected. The options are: {Off, Auto, 2-255}.
- **Brightness:** {Normal} – Adjust the overall image and background screen brightness (backlight) in Screen menu. {ACS} – Apply brightness values (backlight) which is adjusted by MIC tool. The default value before adjustment is the same as brightness setting in Screen menu.

Off timer

Set the display to turn itself off to standby mode within a specified period of time.

The options are: {Off, 1 ~ 24} hours from current time.

NOTE: When the "Off timer" is activated, the "Schedule" settings will be disabled.

Date and time

Adjust the current date and time for the display's internal clock.

Date and time	
Auto Sync	☑
Set date	
Set time	
Choose time zone London, Dublin GMT +0:00	
NTP Server	time.android.com ▼
Current date time	2023/03/14 11:11:18
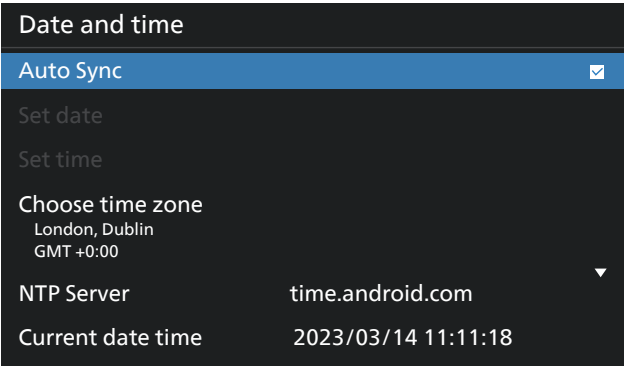
- {Auto Sync} - Auto sync display's clock with NTP server.

Schedule

Allow user setup up to seven different scheduled intervals of display activity.

Schedule	
Schedule list	1
Enable	☐
Start time	
End time	
Input	
Playlist	
Days of the week	
Every week	☐
Brightness	Off
Back	Save
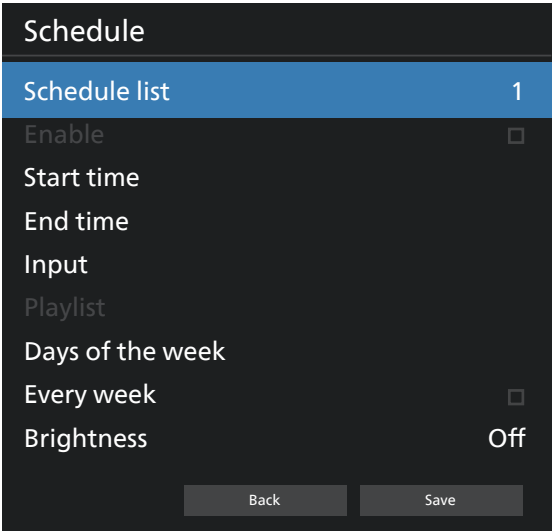
- {Schedule list} – Select 1-7 schedules to edit.
- {Enable} – Enable/disable selected schedule. If time conflict with other schedule or start/end time, input source are empty, user cannot enable this schedule.
- {Start time} – Set start time.
- {End time} – Set end time.
- {Input} – Set input source, system will go to selected source automatically at start time.
- {Play list} – Set playlist 1-7 for MediaPlayer, PDF Player and Browser sources.
- {Days of the week} – Set Sunday, Monday, Tuesday, Wednesday, Thursday, Friday and Saturday.
- {Every week} – Set lifecycle.
- {Brightness} – Set brightness of schedule-source.
- {Back} – Cancel and do not change schedule data.
- {SAVE} – Save schedule data.

HDMI with One Wire

Enable or disable HDMI CEC.

HDMI One Wire Power Off

Allow user to set multiple devices to standby mode by pressing the power button. This function is only available when HDMI CEC is enabled.

Auto signal detection

This function allows the system to detect and display the available signal sources automatically.

- {Off} - Once a signal is connected, it can only be selected manually.

If the selected input has no signal, set the system to display the image automatically according to the search order of each option.

The options are: {All} / {Failover}

- {All} – DP -> DVI-I -> VGA -> HDMI1 -> HDMI2 ->Media Player -> BROWSER -> PDF Player -> Custom.
- {Failover} - Once a signal is connected, it can only be selected manually.
    - Failover 1-10: User-defined setting. Default: HDMI.

Language

Select the language used in the OSD menu.

The options are: English/Deutsch/ 简体中文 /Français/Italiano/ Español/Русский/Polski/Türkçe/ 繁體中文 / 日本語 /Português/ العربية/Danish/Swedish/Finnish/Norwegian/Dutch/Czech/ Lithuanian/Latvian/Estonian.

OSD Transparency

Adjust OSD transparency.

- {Off} - Transparency off.
- {1-100} - Transparency level 1-100

Power Save

Mode 1 [TCP off, WOL on, auto off]

Mode 2 [TCP off, WOL on, auto on/off]

Mode 3 [TCP on, WOL off, auto on/off]

Mode 4 [TCP on, WOL off, no auto on/off]

Power Save	RCU Power Button Off	No Signal	WOL	Android (ARM)
Mode 1	DC OFF	DC OFF	V	ARM off
Mode 2	DC OFF	when signal is back, system wake up	V	ARM off
Mode 3	Backlight OFF	when signal is back, system wake up	X	ARM on
Mode 4	Backlight OFF	Backlight always on, show no signal	X	ARM on

Following table is the action for Android board with different power mode.

Power mode	Mode 1, Mode 2	Mode 3, Mode 4
DC off	System shutdown	1. Media Player, Browser and PDF Player will close. 2. Android system goes to default black launcher.
DC on	System boot up	Android system reboot. If Logo settings is off, system directly turn backlight on without rebooting.

ECO mode

ECO mode enables and disables Dynamic Backlight Control.

When ECO is enabled it will improve the overall picture performance and reduce power consumption.

When ECO is disabled it will result in the highest screen brightness.

Advanced option reset

Reset all settings except {Date and Time} in the advanced option menu to factory preset values.

8. Supported Media Formats

USB Multimedia Formats

Video format

Video Codec	Resolution	Bit Rate
MPEG1/2	1080P@60fps	80Mbps
MPEG4	1080P@60fps	40Mbps
H.263	1080P@60fps	40Mbps
H.264	4k2k@60fps	135Mbps
H.265	4K2K@60fps	100Mbps
VP8	1920x1080@60fps	50Mbps
VP9	4K2K@60fps	100Mbps

Audio format

Audio Codec	Sampling Rate:	Channel	Bit Rate
MPEG1/2/2.5 Layer3	8KHz~48KHz	2	8Kbps~320Kbps
MPEG1/2 Layer1	16KHz~48KHz	2	32Kbps~448Kbps
MPEG1/2 Layer2	16KHz~48KHz	2	8Kbps~384Kbps
AAC, HEAAC	8KHz~48KHz	5.1	AAC-LC:12Kbps~576Kbps V1:6Kbps~288Kbps V2:3Kbps~144Kbps

Photo format

Image		Max. Resolution
JPEG	Base-line	1920 x 1080
	Progressive	1024 x 768
PNG	non-interlace	1920 x 1080
	interlace	1920 x 1080
BMP		15360 x 8640

NOTES:

• Sound or video may not work if the contents have a standard bit rate/frame rate above the compatible Frame/sec listed in the table above.

• Video content with a Bit rate or Frame rate larger than the rate specified in the table above can cause choppy video during playback.

9.   Input Mode

Timing support:

Item	Resolution	H.Freq. (KHz)	V.Freq. (Hz)
1	720×400 @70Hz DOS	31.469	70.087
2	640×480 @60Hz DMT	31.469	59.94
3	640×480 @67Hz MAC	35	66.667
4	640×480 @72Hz DMT	37.861	72.809
5	640×480 @75Hz DMT	37.5	75
6	800×600 @56Hz DMT	35.156	56.25
7	800×600 @60Hz DMT	37.879	60.317
8	800×600 @72Hz DMT	48.077	72.188
9	800×600 @75Hz DMT	46.875	75
10	832×624 @75Hz MAC	49.725	74.5
11	1024×768 @60Hz DMT	48.363	60.004
12	1024×768 @70Hz DMT	56.476	70.069
13	1024×768 @75Hz DMT	60.023	75.029
14	1152×864 @75Hz DMT	67.5	75
15	1152×870 @75Hz MAC	68.681	75.062
16	1280×720 @60Hz CVT16:9	44.772	59.855
17	1280x800 @60Hz CVT16:10	49.702	59.81
18	1280×1024 @60Hz DMT	63.981	60.02
19	1440×900 @60Hz CVT16:10 R	55.469	59.901
20	1440×900 @60Hz CVT16:10	55.935	59.887
21	1600×1200 @60Hz CVT16:9	75	60
22	1680×1050 @60Hz CVT16:9 R	64.674	59.883
23	1680×1050 @60Hz CVT16:9	65.29	59.954
24	1920×1080 @60Hz CVT-RB / XBOX360	66.7	60
25	1920×1080 @60Hz DMT-RB	67.5	60
26	480i@60Hz	15.734	59.94
27	480P@60Hz	31.469	59.94
28	720P@60Hz	44.955	59.94
29	1080I@60Hz	33.716	59.94
30	1080P@60Hz	67.433	59.94
31	576P@50Hz	31.25	50
32	720P@50Hz	37.5	50
33	1080I@50Hz	28.125	50.08
34	1080P@50Hz	56.25	50
35	3840x2160@24Hz	54	24
36	3840x2160@25Hz	56.25	25
37	3840x2160@30Hz	67.5	30
38	3840x2160@50Hz	112.5	50
39	3840x2160@60Hz	135	60

- The PC text quality is optimum in FHD mode (1920 x 1080, 60Hz).
- Your PC display screen might appear different depending on the manufacturer (and your particular version of Windows).
- Check your PC instruction book for information about connecting your PC to a display.
- If a vertical and horizontal frequency-select mode exists, select 60Hz (vertical) and 31.5KHz (horizontal). In some cases, abnormal signals (such as stripes) might appear on the screen when the PC power is turned off (or if the PC is disconnected). If so, press the [INPUT] button to enter the video mode. Also, make sure that the PC is connected.
- When horizontal synchronous signals seem irregular in RGB mode, check PC power saving mode or cable connections.
- The display settings table complies to the IBM/VESA standards, and based on the analog input.
- The DVI support mode is regarded as same to the PC support mode.
- The best timing for the vertical frequency to each mode is 60Hz.

10. Pixel Defect Policy

We strive to deliver the highest quality products and use some of the industry's most advanced manufacturing processes whilst practicing stringent quality control. However, pixel or sub-pixel defects on the PDP / TFT panels used in Plasma- & LCD- displays are sometimes unavoidable. No manufacturer can guarantee that all panels will be free from pixel defects, but Philips guarantees that any Plasma- & LCD- displays with an unacceptable number of defects will be repaired during the warranty period in line with your local guarantee conditions.

This notice explains the different types of pixel defects and defines the acceptable defect level for the LCD screen. In order to qualify for repair under warranty, the number of pixel defects must exceed a certain level as shown in the reference table. If the LCD screen is within specification a warranty exchange / claim back will be refused. Additionally, because some types or combinations of pixel defects are more noticeable than others, Philips sets even higher quality standards for those.

10.1. Pixels and Sub-Pixels
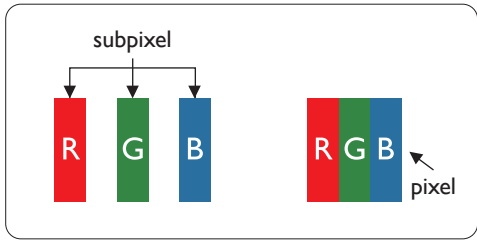
A pixel, or picture element, is composed of three sub-pixels in the primary colors of red, green and blue. Many pixels together form an image. When all sub-pixels of a pixel are lit, the three colored sub-pixels together appear as a single white pixel. When all are dark, the three colored sub-pixels together appear as a single black pixel. Other combinations of lit and dark sub-pixels appear as single pixels of other colors.

10.2. Types of Pixel Defects + Dot Definition

Pixel and sub-pixel defects appear on the screen in different ways. There are three categories of pixel defects and several types of sub-pixel defects within each category.

Dot definition = What is a defective "Dot"? :

One or more defective, adjacent sub-pixel are defined as one "dot". The no. of defective sub-pixels are not relevant to define a defective dot. This means that a defective dot can consist of one, two or three defective sub-pixels which can be dark or lit.
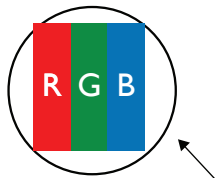
One dot = One Pixel; consists of three sub-pixels of Red, Green, and Blue.

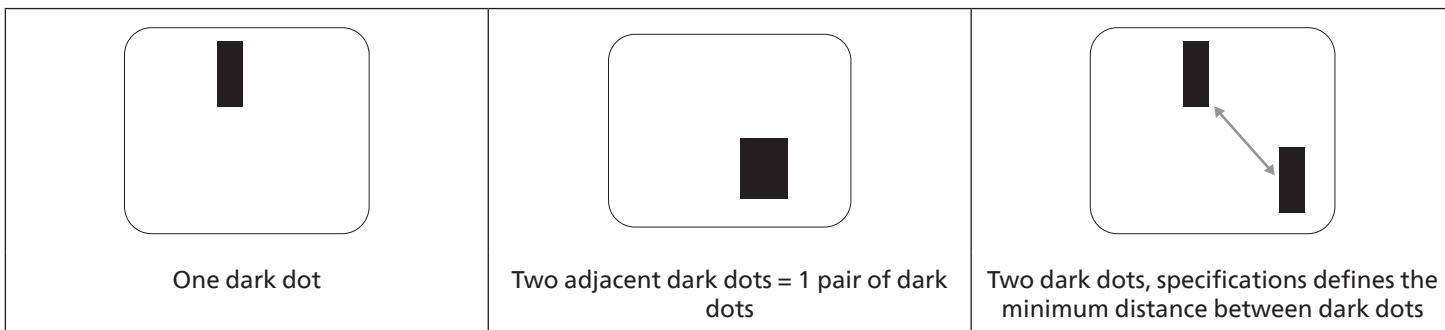## 10.3. Bright Dot Defects

Bright dot defects appear as pixels or sub-pixels that are always lit or "on". These are the examples of bright dot defects:

| One lit red, green or blue sub pixel | Two adjacent lit sub pixels:
 Red + Blue = Purple
 Red + Green = Yellow
 Green + Blue = Cyan (Light Blue) | Three adjacent lit sub pixels (one white pixel) |

10.4. Dark Dot Defects

Black dot defects appear as pixels or sub-pixels that are always dark or "off". These are the examples of black dot defects:

One dark dot	Two adjacent dark dots = 1 pair of dark dots	Two dark dots, specifications defines the minimum distance between dark dots

10.5. Proximity of Pixel Defects

Because pixel and sub-pixels defects of the same type that are nearby one another may be more noticeable, Philips also specifies tolerances for the proximity of pixel defects. In the table below you can find specifications about:
- Allowed amount of adjacent dark dots = (adjacent dark dots =1 pair of dark dots)
- Minimum distance between dark dots
- Total no. of all defective dots

10.6. Pixel Defect Tolerances

In order to qualify for repair due to pixel defects during the warranty period, a PDP / TFT panel in a Philips Plasma / LCD- display must have pixel or sub-pixel defects exceeding the tolerances listed in the following table.

BRIGHT DOT EFFECT	ACCEPTABLE LEVEL
1 lit sub pixel	2
BLACK DOT EFFECT	ACCEPTABLE LEVEL
1 dark sub pixel	10
TOTAL DOT DEFECTS OF ALL TYPES	12

NOTE: * 1 or 2 adjacent sub pixel defects = 1 dot defect

10.7. Mura

Dark spots or patches may occasionally appear on some liquid crystal display (LCD) panels. This is known within the industry as Mura, which is a Japanese term for "unevenness." It is used to describe an irregular pattern or area in which uneven screen uniformity appears under certain conditions. Mura is a result of the deterioration of the liquid crystal alignment layer and is most commonly caused by long-term operation under high ambient temperatures. It is an industry- wide phenomenon and Mura is not repairable. It is also not covered by our warranty terms.

Mura has been around since the introduction of LCD technology and with screens getting bigger and in operation 24/7, many displays are running in low light conditions. This all adds to the possibility of Mura affecting displays.

HOW TO SPOT MURA

There are many symptoms of Mura and also multiple causes. Several of these are listed below:
- Impurities or foreign particles in the crystal matrix
- Uneven distribution of LCD matrix during manufacturing
- Non-uniform luminance distribution of the backlight
- Panel assembly induced stress
- Flaws within the LCD cells
- Thermal induced stress - high temperature operation over long periods of time

HOW TO AVOID MURA

Although we can not guarantee the complete eradication of Mura every time, in general the appearance of Mura can be minimized by these methods:

- Lower the backlight brightness
- Use a screen saver
- Reduce the ambient temperature around the unit

11. Cleaning and Troubleshooting

11.1. Cleaning

Caution When Using the Display

- Do not bring your hands, face or objects close to the ventilation holes of the display. The top of the display is usually very hot due to the high temperature of exhaust air being released through the ventilation holes. Burns or personal injuries may occur if any body parts are brought too close. Placing any object near the top of the display could also result in heat related damage to the object as well as the display itself.
- Be sure to disconnect all cables before moving the display. Moving the display with its cables attached may damage the cables and thus cause fire or electric shock.
- Disconnect the power plug from the wall outlet as a safety precaution before carrying out any type of cleaning or maintenance procedure.

Front Panel Cleaning Instructions

- The front of the display has been specially treated. Wipe the surface gently using only a cleaning cloth or a soft, lint-free cloth.
- If the surface becomes dirty, soak a soft, lint-free cloth in a mild detergent solution. Wring the cloth to remove excess liquid. Wipe the surface of the display to remove dirt. Then use a dry cloth of the same type to dry.
- Do not scratch or hit the surface of the panel with fingers or hard objects of any kind.
- Do not use volatile substances such as insert sprays, solvents and thinners.

Cabinet Cleaning Instructions

- If the cabinet becomes dirty, wipe the cabinet with a soft, dry cloth.
- If the cabinet is extremely dirty, soak a lint-free cloth in a mild detergent solution. Wring the cloth to remove as much moisture as possible. Wipe the cabinet. Use another dry cloth to wipe over until the surface is dry.
- Do not use solution that contains oil to clean the plastic parts. Such product damage the plastic parts and void the warranty.
- Do not allow any water or detergent to come into contact with the surface of the display. If water or moisture gets inside the unit, operating problems, electrical and shock hazards may result.
- Do not scratch or hit the cabinet with fingers or hard objects of any kind.
- Do not use volatile substances such as insert sprays, solvents and thinners on the cabinet.
- Do not place anything made from rubber or PVC near the cabinet for any extended periods of time.

11.2. Troubleshooting

Symptom	Possible Cause	Remedy
No picture is displayed	1. The power cord is disconnected. 2. The main power switch on the back of the display is not switched on. 3. The selected input has no connection. 4. The display is in standby mode.	1. Plug in the power cord. 2. Make sure the power switch is switched on. 3. Connect a signal connection to the display.
Interference displayed on the display or audible noise is heard	Caused by surrounding electrical appliances or fluorescent lights.	Move the display to another location to see if the interference is reduced.
Color is abnormal	The signal cable is not connected properly.	Make sure that the signal cable is attached firmly to the back of the display.
Picture is distorted with abnormal patterns	1. The signal cable is not connected properly. 2. The input signal is beyond the capabilities of the display.	1. Make sure that the signal cable is attached firmly. 2. Check the video signal source to see if it is beyond the range of the display. Please verify its specifications with this display's specification section.
Display image doesn't fill up the full size of the screen	1. The zoom mode is not set correctly. 2. Scan Mode may be set incorrectly to underscan. 3. If the image exceeds the screen size, Scan Mode may need to be set to Underscan.	Use the Zoom mode or Custom zoom function in the Screen menu to fine tune display geometry and time frequency parameter.
Can hear sound, but no picture	Source signal cable is connected improperly.	Make sure that both video inputs and sound inputs are correctly connected.
Can see picture but no sound is heard	1. Source signal cable is connected improperly. 2. Volume is turned all the way down. 3. {Mute} is turned on. 4. No external speaker connected.	1. Make sure that both video inputs and sound inputs are correctly connected. 2. Press [➕] or [➖] button to hear sound. 3. Switch MUTE off by using the [🔇] button. 4. Connect external speakers and adjust the volume to a suitable level.
Some picture elements do not light up	Some pixels of the display are off.	This display is manufactured using an extremely high level of precision technology: however, sometimes some pixels of the display may not display. This is not a malfunction.
After-Images can still be seen on the display after the display is powered off. (Examples of still pictures include logos, video games, computer images, and images displayed in 4:3 normal mode)	A still picture is displayed for an over extended period of time	Do not allow a still image to be displayed for an extended period of time as this can cause a permanent after-image to remain on the display.

12. Technical Specifications

Display:

Item	Specifications
Screen Size (Active Area)	800.1 mm / 31.5 inch
Aspect Ratio	16:9
Number of pixels	1920 (H) x 1080 (V)
Pixel pitch	0.36375 (H) x 0.36375 (V) [mm]
Displayable colors	8 bits, 16.7 Million colors
Brightness (typical)	400 cd/m^2
Contrast ratio (typical)	1200:1
Viewing angle	178 degrees

In/Out Terminals:

Item		Specifications
Speaker Output	Internal Speakers	10W (L) + 10W (R) [RMS]/8Ω 82 dB/W/M/160 Hz - 13 KHz
Audio Output	3.5mm phone jack x 1	0.5V [rms] (Normal) / 2 Channel (L+R)
Audio Input	3.5mm phone jack x 1	0.5V [rms] (Normal) / 2 Channel (L+R)
RS232	2.5mm Phone jack x 2	RS232 in/RS232 out
RJ-45	RJ-45 Jack x 1 (8 pin)	10/100 LAN Port
HDMI Input	HDMI Jack x2 (Type A) (19 pin)	Digital RGB: TMDS (Video + Audio) MAX: Video - 720p, 1080p, 3840 x 2160/60 Hz Audio - 48 KHz/ 2 Channel (L+R) Supports LPCM only
DVI-I Input	DVI-I Jack	Digital RGB: TMDS (Video) Analog RGB: 0.7V [p-p] (75Ω), H/CS/V: TTL (2.2kΩ), MAX: 1920 x 1080/60 Hz (WUXGA)
IR Input/Output	3.5mm x 2	IR pass through or IR daisy chain
SD card	Micro SD card	Support to 1TB
USB Input	USB2.0 x 2 (Type A)	USB Multimedia play and service port
USB Input	USB3.0 x 2 (Type A)	USB Multimedia play

General:

Item	Specifications
Power Input	100 - 240V~, 50/60Hz
Power Consumption (Max)	75 W
Power Consumption (Typ.)	38 W
Power Consumption (Standby mode & Off mode)	<0.5 W
AC Switch Off Mode (W)	0 W
Dimensions (Without Stand) [W x H x D]	726.5 x 425.4 x 69.1 mm(AC)/65.1 mm(Wall mount)
Weight (Without Stand)	5.7 Kg
Gross Weight (Without Stand)	8.4 Kg

Environmental Condition:

Item		Specifications
Temperature	Operational	0 - 40°C
	Storage	-20 - 60°C
Humidity	Operational	20 - 80% RH (No condensation)
	Storage	5 - 95% RH (No condensation)
Altitude	Operational	0 - 5,000 m
	Storage / Shipment	0 - 9,000 m

Warranty Policy for Philips Professional Display Solutions

Thank you for purchasing this Philips product. Philips products are designed and manufactured with high standards and deliver high quality performance, ease of use and ease of installation. If you encounter any difficulties while using your product, we recommend that you first consult the user manual or the information in the support section of the website, where (depending on the product type) you may find a downloadable user manual, frequently asked questions, instruction videos or a support forum.

LIMITED WARRANTY

In the unlikely event the product requires service, we will arrange for your Philips product to be serviced free-of-charge within the warranty period, provided that the product was used in accordance with the user manual (e.g. in the intended environment).

For these product categories, a partner company of Philips is the warrantor of the product. Please check the documentation supplied with your product.

WHO IS COVERED?

Your Warranty coverage begins from the first date of purchase of the product. You need to provide proof of purchase to receive warranty service. A valid sales receipt or other valid document showing that you purchased the product is considered proof of purchase.

WHAT IS COVERED?

If any defect due to faulty materials and/or workmanship occurs within the warranty period, we will make arrangements for a free of charge service. Where a repair is not possible or not commercially viable, we may replace the product with a new or equivalent refurbished product with similar functionality. Replacement will be offered at our discretion and the warranty will continue from the date of original purchase of the first date of purchase of the product. Please note that all parts, including repaired and replaced parts, are covered only for the duration of the original warranty period.

WHAT IS EXCLUDED? Your warranty does not cover:

- Consequential damages (including but not limited to loss of data or loss of income), nor compensation for activities done by yourself, such as regular maintenance, installing firmware updates or saving or restoring data (Some states do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply to you. This includes, but is not limited to, prerecorded material, whether copyrighted or not copyrighted.)
- Labor charges for installation or setup of the product, adjustment of customer controls on the product, and installation or repair of various types of external devices (e.g., WiFi, antenna, USB dongles, OPS type devices) and other systems outside of the product.
- Reception problems caused by signal conditions or cable or antenna systems outside the unit.
- A product that requires modification or adaptation to enable it to operate in any country other than the country for which it was designed, manufactured, approved and/or authorized, or repair of products damaged by these modifications.
- If the model or production number on the product has been altered, deleted, removed or made illegible.

The warranty applies on condition that the product has been handled properly for its intended use and in accordance with the operating instructions

To Obtain Warranty Service And Information

For detailed warranty coverage information and additional support requirement and help line, please contact the seller and/or system integrator you purchased the product from. Please note in the USA, this limited warranty is only valid for Products purchased in the Continental United States, Alaska, and Hawaii.

Before Requesting Service

Please check your user's manual before requesting service. Adjustments of the controls discussed there may save you a service call.

WARRANTY PERIOD

Warranty period for PHILIPS signage display is listed as below, for areas not covered in this table, please follow their warranty statement.

Standard warranty period for PHILIPS signage display is listed as below, for areas not covered in this table, please follow the local warranty statement.

Region	Standard Warranty Period
USA, Canada	3 years
China	3 years
Japan	3 years
Rest of world	3 years
Mexico	3 years
Brazil	3 years
Chile	3 years
Peru	3 years

Note that for professional products, the specific warranty terms of the sale- or purchase agreement may apply.

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PHILIPS