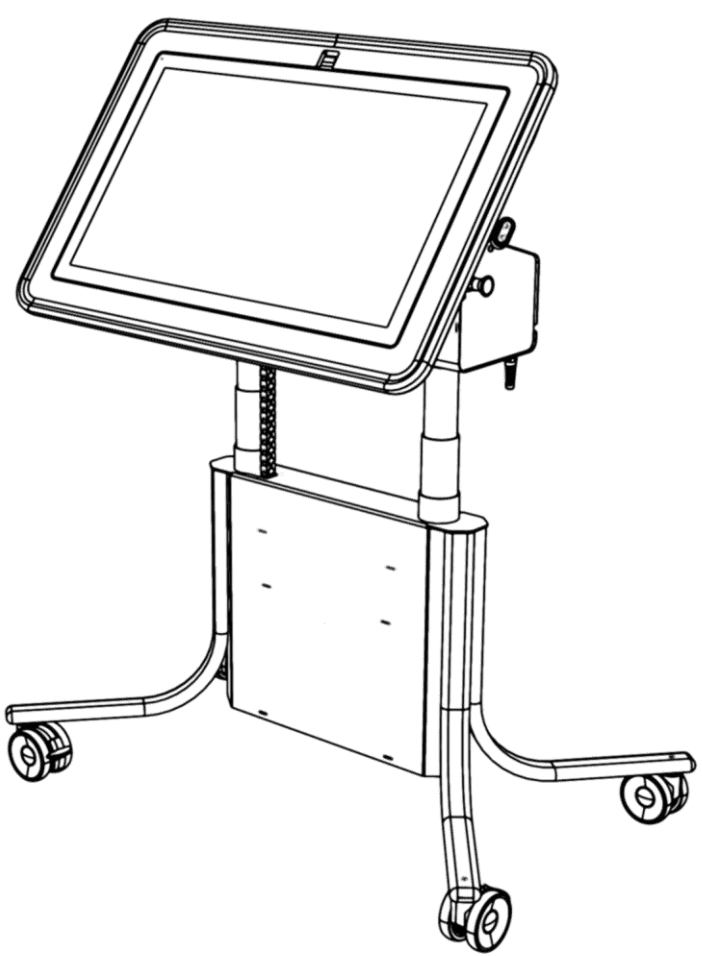


User Manual

Flex With Battery

v1.4

dalen

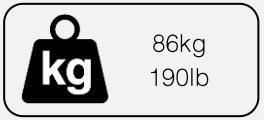
Contents

1. Introduction
2. Safety information
3. Operating instructions
4. Screen instructions
5. Android Device instructions
6. Troubleshoot
7. Technical information
8. Warranty
9. Faults and repairing
10. Manufacturer information

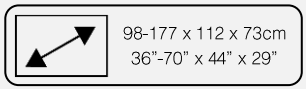
1. Introduction

- A mobile screen solution with both screen angle and screen height adjustment. An adult user can adjust the screen angle from vertical to horizontal. Electronically controlled actuator legs allow a switch to raise or lower the screen to the desired height. It is supplied with a 32” screen and an Android 10 device fitted, and is intended for used in a care home or businesses.
- This is the battery powered version.
- This manual is intended for use by users and installers.

Key



Product weight



Product size



Do not immerse any components in liquid or allow liquid to get into the unit.



Suitable for installation by a single user.

2. Safety information

2.1. Safety Instructions

It is recommended to maintain personal safety and to maximise the life of this equipment to read and follow the instructions contained within this manual

- Read and follow all instructions contained within this manual and observe all warnings situated on the equipment.
- Do not expose the equipment to rain or moisture.
- Power connection MUST include a dedicated Earth connection.
- Please follow the voltage, frequency, and current requirements indicated on the label. Connection to a different power source than those specified will likely result in improper operation, damage to the equipment, or pose a fire hazard if the limitations are not followed.
- There are no operator serviceable parts inside this equipment. There are hazardous voltages generated by this equipment which constitute a safety hazard. Service should be performed only by a qualified service technician.
- If used in manner not as intended you may impair the safety of the product.
- Warning: Operation of this equipment in a residential environment could cause radio interference.
- Audio hiss is a normal phenomenon and not a fault of the device.
- For your safety, it is strongly recommended that a minimum of two people lift the equipment if required.
- DO NOT lift the equipment via the wooden trim.
- To prevent overheating and/or shortening the life of the equipment, do not block or cover any vents or openings.
- The touch panel used in this product contains glass. Should the equipment sustain damage take care to avoid injury due to contact with broken glass.
- This equipment is not a climbing frame. Misuse of the equipment in this manner may cause physical injury.
- This product is not a toy. Children should be supervised at all times by a responsible adult whilst in use.

2. Safety information

2.2. Cleaning Guide

The following steps are to provide customers with the information they need to properly clean the surfaces of the equipment

Recommendation for cleaning the exterior touch surfaces of the equipment:

1. Turn off the device and disconnect AC power.
2. Wear disposable gloves (latex or nitrile) when cleaning and disinfecting surfaces.
3. Moisten a microfibre cloth with soapy water (do not spray).
4. It is recommended to use a slightly damp microfibre cloth and soapy water to clean the exterior surfaces of the product. Effort should be made to minimise any excess liquid while cleaning, and to avoid any liquid ingress into any gaps between components.
5. If required, we recommend the use of a cream cleaner to remove dirt from the white edge of the screen surround. Avoid working the cleaner into the black bezel of the surround. We recommend testing any cleaner on a small concealed area before commencing cleaning.
6. When cleaning the display, wipe in one direction.
7. When finished, discard gloves and wash hands immediately for 20 seconds with soap and water.

Precautions to take when cleaning and disinfecting the equipment:

1. Never spray cleaning solutions on equipment, only use a moistened lint-free or microfibre cleaning cloth.
2. Do not use paper towels or tissues to clean equipment.
3. Do not use chemicals to clean the equipment.
4. Only clean the exterior touch surfaces when cleaning and disinfecting equipment.
5. Never use abrasives or chemicals other than those advised such as bleach, ammonia, acetone, peroxide or other cleaning agents on equipment as these can damage the finish as well as damage electrical components.
6. Customers may experience some visible changes to cosmetic finishes over time as a result of the cleaning techniques mentioned in this document.
7. Take extra precaution when cleaning painted or glossy surfaces: test a small area before proceeding.

2. Safety information

2.3. Battery Warning

! WARNING !

- Lithium-ion and lithium polymer cells and battery packs may get hot, explode or ignite and cause serious injury if exposed to abuse conditions. Be sure to follow the safety warnings listed below:
  - Do not place the battery in fire or heat the battery.
  - Do not install the battery backwards so the polarity is reversed.
  - Do not connect the positive terminal and negative terminal of the battery to each other with any metal object (such as wire).
  - Do not carry or store battery together with necklaces, hairpins or other metal objects.
  - Do not pierce the battery with nails, strike the battery with a hammer, step on the battery or otherwise subject it to strong impacts or shocks.
  - Do not solder directly onto the battery.
  - Do not expose battery to water or salt water, or allow the battery to get wet.
- Do not disassemble or modify the battery. The battery contains safety and protection devices, which, if damaged, may cause the battery to generate heat, explode or ignite.
  - The protection circuit module provided with battery packs is not to be used as a substitute for a shut-off switch.
- Do not place the battery in or near fire, on stoves or other high temperature locations. Do not place the battery in direct sunlight, or use or store the battery inside cars in hot weather. Doing so may cause the battery to generate heat, explode or ignite. Using the battery in this manner may also result in a loss of performance and a shortened life expectancy.
- If the device is to be used by small children, the caregiver should explain the contents of this document to the children and provide adequate supervision to ensure the device is being used appropriately.
- When the battery is worn out, insulate the terminals with adhesive tape or similar materials before disposal.
- Immediately discontinue use of the battery if, while using, charging or storing the battery, the battery emits an unusual smell, feels hot, changes colour or shape, or appears abnormal in any other way.
- Do not place the battery in microwave ovens, high-pressure containers or on induction cookware.
- In the event the battery leaks and the fluid gets into one's eye, do not rub the eye. Rinse well with water and immediately seek medical care. If left untreated, the battery fluid could cause damage to the eye.

2. Safety information

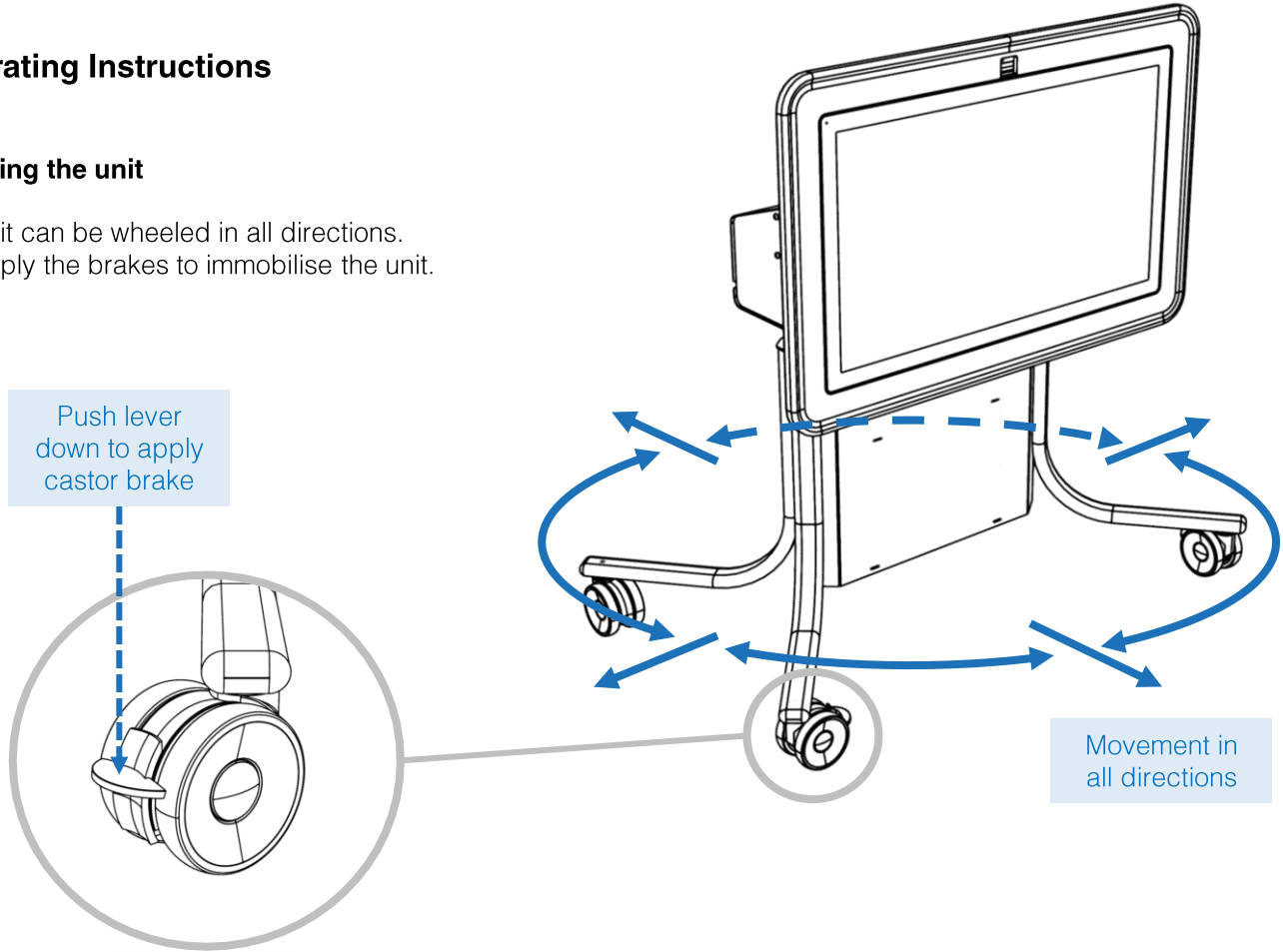
2.4. The equipment labels

	Electrical hazard warning label: This warning is intended to alert the user of the presence hazardous voltages within the equipment enclosure which constitute a safety hazard. For battery versions of the equipment, there may still be the presence of a power source even when isolated from the mains.
	Earth location: Any terminal marked with this label must be connected while in use to maintain a safety Earth connection.
	Mechanical hazard warning label: This warning is intended to alert the user of the presence of moving parts. Operation of this mechanism may present a risk of trapping if proper care and attention is not observed. Please follow instructions contained within this manual to ensure safe operation.

2. Operating Instructions

3.1. Moving the unit

a. Unit can be wheeled in all directions.
b. Apply the brakes to immobilise the unit.

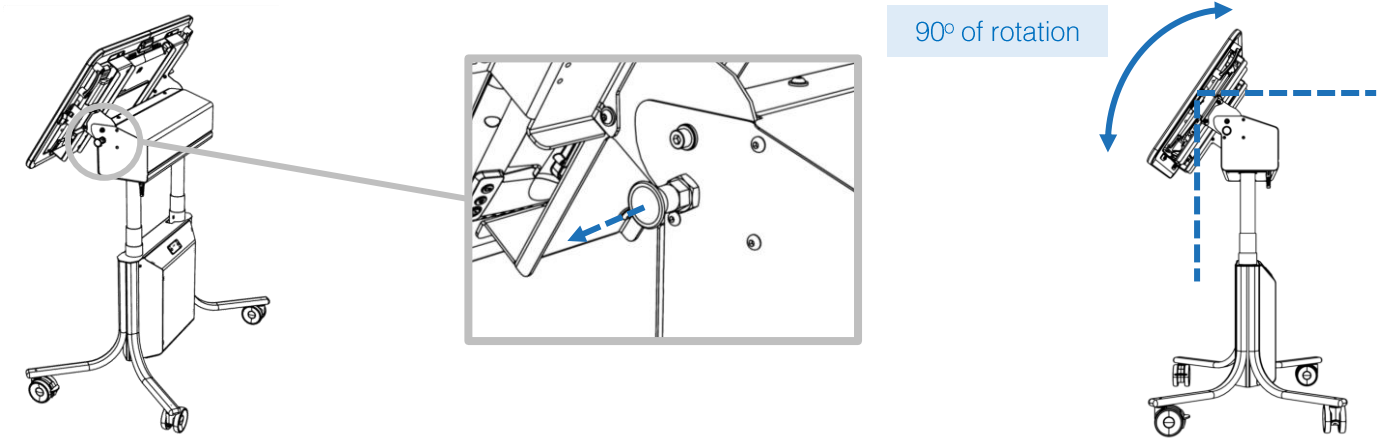


3. Operating Instructions

3.2. Adjusting the screen angle

Warning: Ensure the area beneath and around the screen is clear of obstruction and there is sufficient room to adjust the screen before making any adjustment.

a. While the full weight of the screen is supported by an internal mechanism, there may be some movement observed when undertaking the next step. Users should support the screen to control any unintended movement.
b. Pull the plunger handle (coloured RED) and keep held out. This will release the angle adjustment mechanism and allow the screen to rotate freely.
c. Adjust screen to desired angle.
d. Release plunger and tweak the angle adjustment until you observe the plunger fully lock back into place.

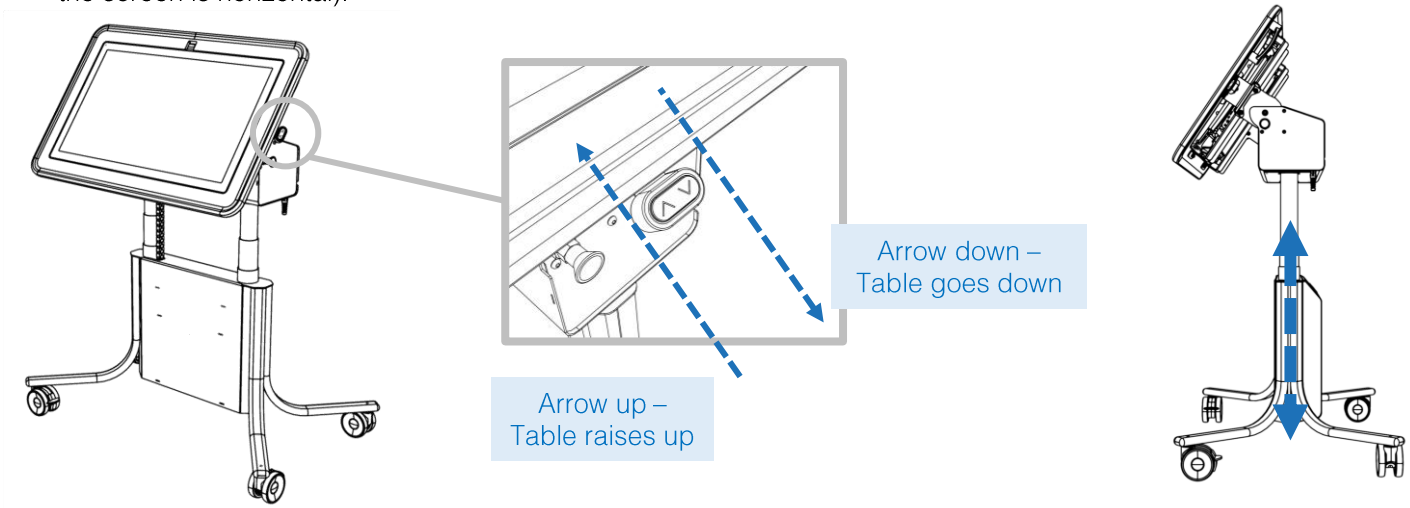


3. Operating Instructions

3.3. Adjusting the screen height

Warning: Ensure the area beneath and around the screen is clear of obstruction and there is sufficient room to adjust the screen before making any adjustment.

a. The height of the unit is electronically controlled.
b. Use the attached switch located to the right of the screen.
c. Press the arrow buttons to raise or lower the screen to the desired height (arrows are in correct orientation when the screen is horizontal).



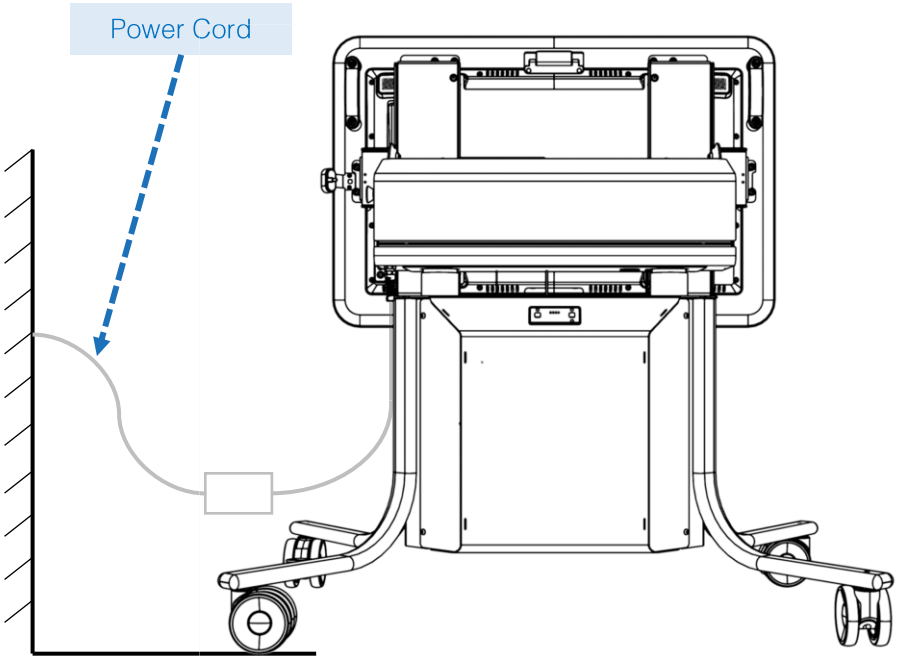
3. Operating Instructions

3.4. Charging the unit

a. To start charging:
Plug in power cord – when plugged in charging will automatically commence.

Please note, the fan will run whilst the unit is charging.

b. To stop charging:
Simply disconnect the power cord. When disconnected the unit will stop charging.



3. Operating Instructions

3.5. Switching the unit On / Off

To operate the unit please observe the following steps in order to switch the unit On / Off.

a. Switch On:
When the unit is off, press the On/Off Button for 3 seconds. An audible “beep” will sound and the “Output On” indicator will light up, see Figure 1.

b. Switch Off:
Press the On/Off Button for 2 seconds. The “Output On” indicator will go off, see Figure 1.

Please note, after switching off wait 5 seconds before Switching On again - this ensures all the units come on in sync.

<u>Battery Charge Gauge Colour Indicator</u>

Green: Charging not required, charge level as per Figure 1.
Red: Charging required, see section 3.4.

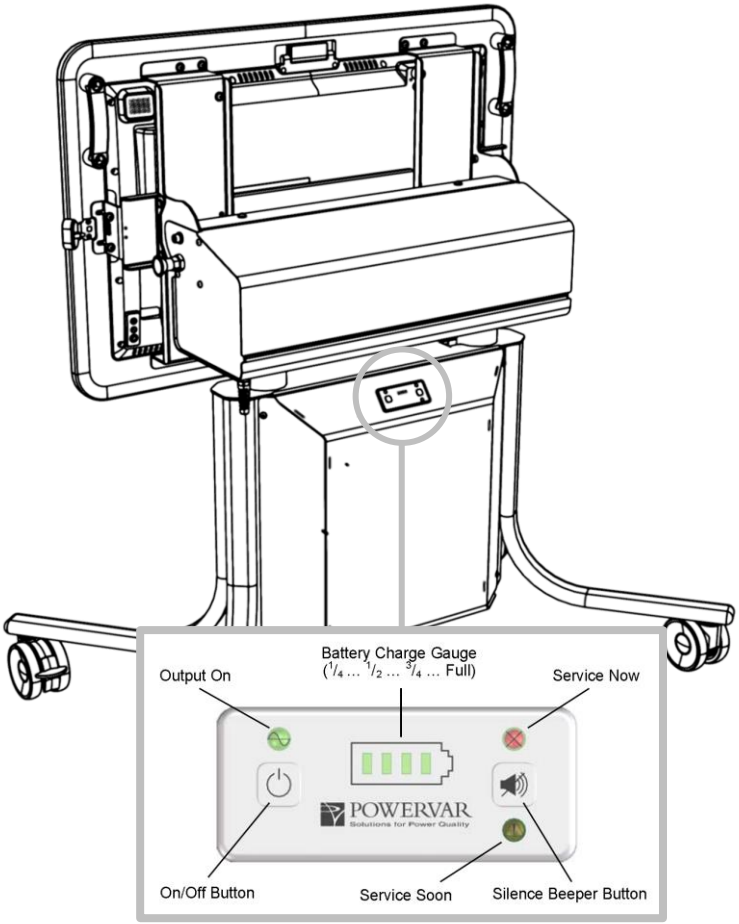


Figure 1

3. Operating Instructions

3.6. Switching the unit On - Troubleshooting

The preferred method for switching the unit On / Off is in the previous section 3.5. However on the rare occasion the unit does not come on you may need to switch on the individual components separately:

a. Switching On the Android Device:
   If LED Indicator OFF – Press Power Button once
   If LED Indicator Orange – Press Power Button once
   If LED Indicator White – Proceed to section 'b.'

b. Switching On the Screen:
   If Power Button OFF – Press Power Button once
   If Power Button Flashing – Press Power Button once

Please note, the screen may take 20 seconds to power on.

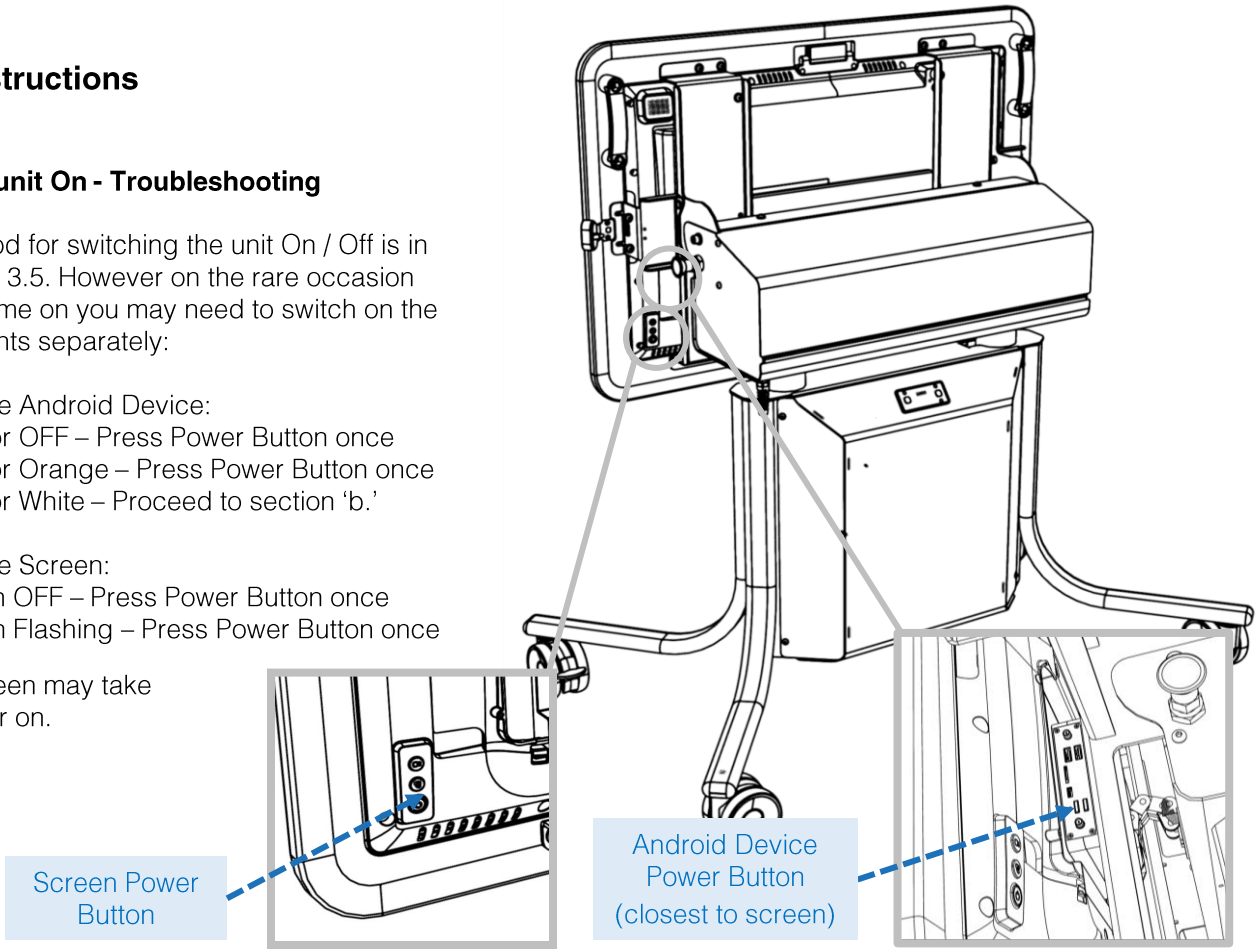


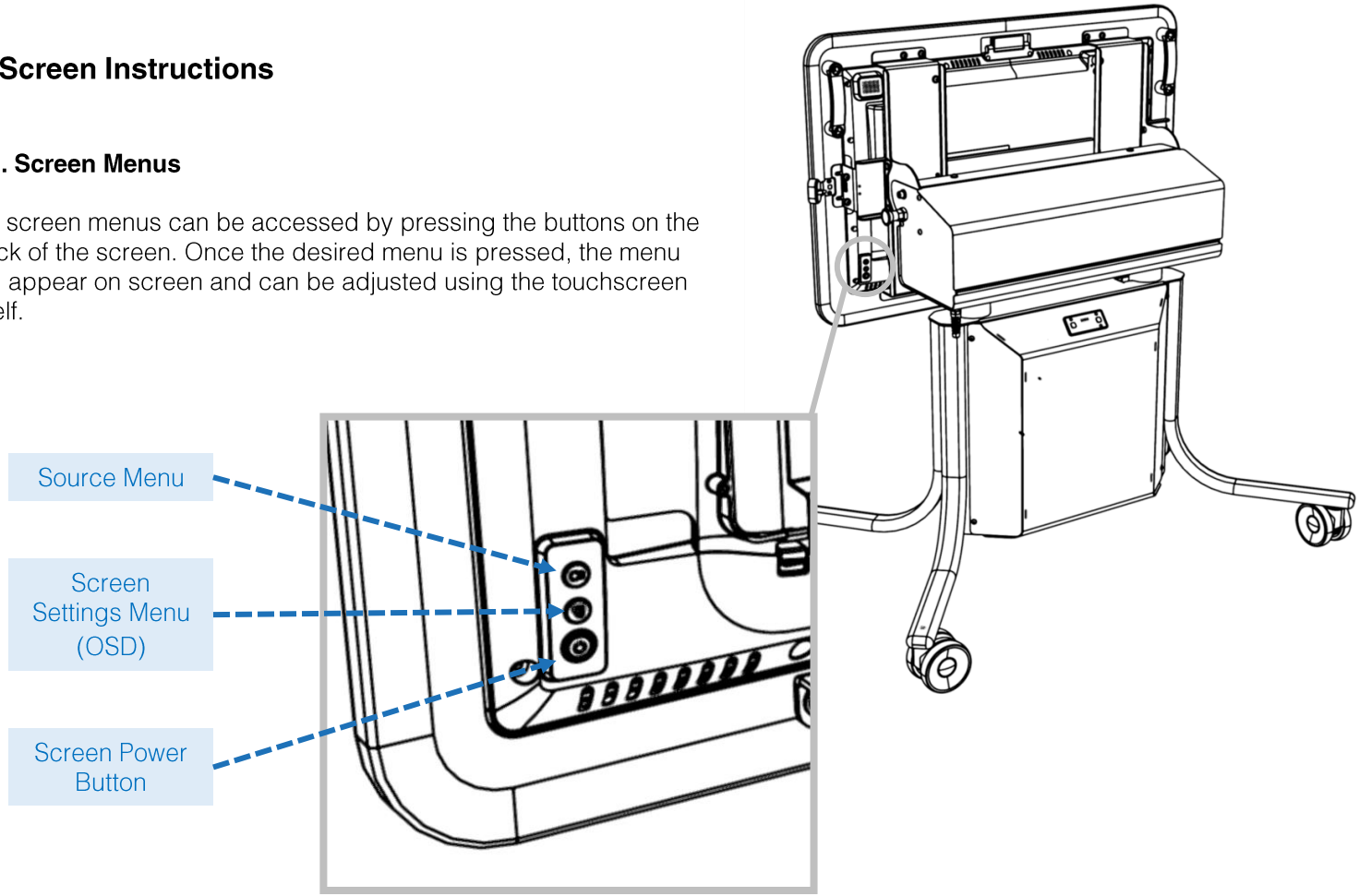
Figure 3

Figure 2

4. Screen Instructions

4.1. Screen Menus

On screen menus can be accessed by pressing the buttons on the back of the screen. Once the desired menu is pressed, the menu will appear on screen and can be adjusted using the touchscreen itself.



4. Screen Instructions

4.2. Source Menu

As soon as video is detected, the monitor will begin to display that content. If you choose to change the video source simply press the indicated button (Figure 4) and the screen will bring up a menu listing the other sources available to view from. Select the desired video source and the screen will start viewing the selected source.

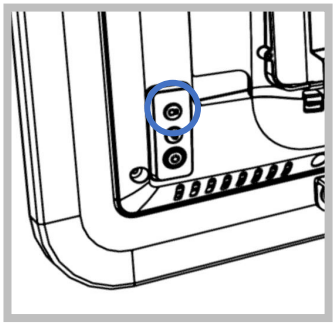


Figure 4

Video sources available:

- HDMI-1 (Default)
- HDMI-2
- Displayport
- Internal PC-DP
- Internal PC-HDMI
- USB-C

4. Screen Instructions

4.3. Touch On-Screen Display (OSD)

The OSD menu allows various settings to be adjusted to the screen. To access the menu push the button indicated (Figure 5) and the screen will bring up a menu, an example is shown below. Use the touchscreen to select and adjust the desired settings.

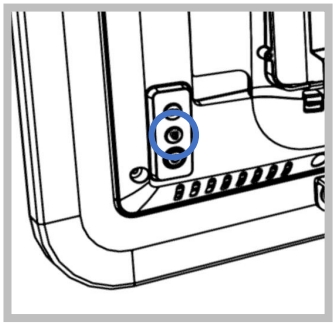
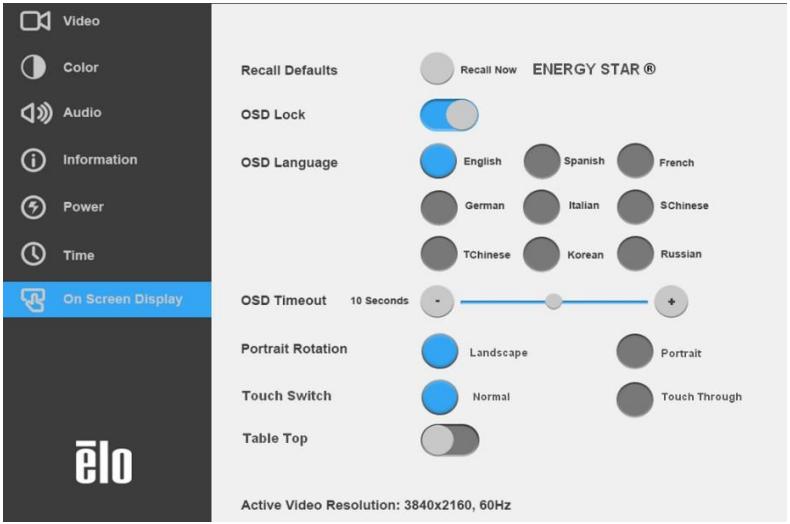


Figure 5



4. Screen Instructions

4.3. Touch On-Screen Display (OSD) continued

Video	Aspect Ratio	Adjusts aspect ratio of the display. Fill Screen – scales the X- and Y-dimensions of the input video (up or down as needed) to the display's native resolution. Fill Aspect Ratio – Assuming a landscape orientation and an input video with aspect ratio smaller than 16:9, scales the Y-dimension of the input video (up or down as needed) to the display's Y-resolution, and scales the X-dimension to maintain the aspect ratio (and fills the rest of the display with equal black bars on the left and right). Direct Output – 1:1, Depends on whether the scalar can support it • Default: Fill Screen
	Black Level	The user can choose between Standard, 5%, 10% or 15% black level offset. The saturation level of the colors change according to the chosen black level offset. • Default: Standard
	Brightness	Adjust the brightness of the display. • Default: Auto Adjustment by Brightness Sensor
	Contrast	Adjust the contrast of the display. • Default: 50
	Sharpness	Adjusts sharpness of the displayed images. Sharpness function is disabled when the input source ratio is the same as the panels native ratio • Default: 0
	Video Port Discovery	When enabled, the monitor will automatically switch if a new video port is connected. • Default: Enabled
	Brightness Sensor	The light sensor can be toggled on or off. When the light sensor is enabled, the brightness cannot be changed manually. • Default: Enabled

4. Screen Instructions

4.3. Touch On-Screen Display (OSD) continued

Colour	Color Temperature	Adjusts color temperature. Color temperature options shall be 9300K, 7500K, 6500K, 5500K, 3200K and User Defined. • Default: User
	Red / Green / Blue	If the User Preset option is selected, the user can change the color temperature by changing individual Red / Green / Blue level on a scale from 0 to 100. • Default: 100
	Picture Modes	Preset color modes that change the color parameters to enhance color definitions. Available modes are: Standard, Movie, Gaming, Photo, Line mode, Color Enhance • Default: Standard
	Color Sensor	Adjusts the display's color based on ambient color Temperature reading. • Default: Disabled
	HDMI Full Color Range	Enabled - displays full color range of HDMI (0-255) Disabled - displays the legacy color range (16-255) • Default: Enabled
Audio	Mute	Enables or disables the audio • Default: Disabled
	Volume	Adjust the audio from 0 – 100 • Default: 50
	Audio In	Sets where audio should play from When set to Internal-PC, the audio comes out from the line out on the ECMG4 (ECM Docking) When set to Monitor, the audio comes out from the video source on the monitor • Default: Monitor
	Audio Output	Sets where audio should play for When set to Speaker, the audio output to the speaker When set to Line Out, the audio output to the line out on the monitor • Default: Speaker

4. Screen Instructions

4.3. Touch On-Screen Display (OSD) continued

Information	Monitor Information	Displays the Model Number, Serial Number, Touchscreen Serial and Firmware Version information
	System Temperature	Displays the real-time temperature of the Video Board Note: CPU Sensor temperature is only available if the feature is supported by the computer module.
	Help & Support	Display information regarding manufacturer contact information.
Power	Power Button Lock	When enabled, the monitor will remain ON even if the power button is pressed. If this feature is enabled and power to the monitor is lost, when power is regained, pressing the power button will turn on the monitor. • Default: Disabled
	Energy Savings Mode	When Enabled, the monitor must adhere to Energy Star regulations. • Default: Enabled
	Power Status Light	Enable or disable the power status light • Default: Enabled
	Power Loss Behavior	When power to the monitor is lost and regained, the behavior that is chosen will be executed. Always On Always Off Last State • Default: Last State
	Auto Display Wake Up	When Enabled, the light sensor can be used to wake the monitor from sleep mode • Default: Disabled

4. Screen Instructions

4.3. Touch On-Screen Display (OSD) continued

Time	Time Set	Option to set the current time
	On/Off Schedule	Set the monitor to turn off and on at specific times. Off: 01:00:00 On: 07:00:00 • Default: Everyday
On Screen Display	Recall Defaults	Selecting “Recall Defaults” restores all factory default settings for OSD-adjustable parameters (except OSD Language and OSD Time Settings) and for Preset Video Mode timings.
	OSD Lock	When selected, the OSD will not popup when the Menu button is pressed. If the OSD needs to be unlocked, press and hold the Menu button for five (5)seconds. This will cause the monitor to unlock the OSD menu.
	OSD Language	Selects which language the OSD information is displayed in. The available languages are; English, French, Italian, German, Spanish, Russian, SimplifiedChinese, Traditional Chinese, Japanese and Korean. • Default: English
	OSD Timer	Adjusts how long a period of OSD button inactivity the IDS Display will wait before closing the OSD. The adjustable range is between 5 and 60 seconds. • Default: 15 seconds
	OSD Portrait Rotation	Adjusts the OSD orientation between Portrait and Landscape mode
	Touch Switch	Select normal touch mode or touch through mode. • Default: Normal mode
	Tabletop	When Enabled, the thermal profile will be changed. • Default: Disabled

4. Screen Instructions

4.4. Power Button

As soon power is applied to the screen it should automatically switch on. A single press of the Power Button switches the screen On or Off (Figure 6). Be aware the screen may take around 20 seconds to power on from being Off. The light status of the Power Button is in the below table.

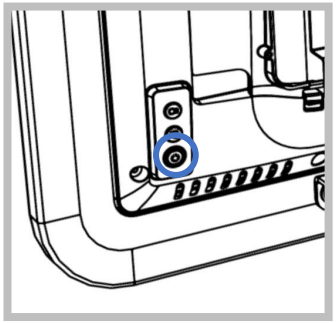


Figure 6

Power Button Status	Description
Off	Off – Screen is off
Solid Green	On – Screen is on
Flashing Green	Screen Idle

5. Android Device Instructions

5.1. Power Button / Home Button

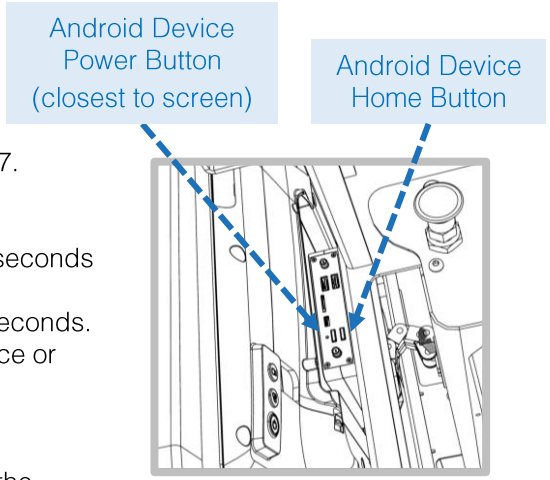


Figure 7

Power Button
As soon as power is applied to the system, the device will boot up, see Figure 7.

- To turn ON the system - press power button once
- To Shut down or Restart - press and hold the power button for more than 2 seconds and follow the on-screen display menu.
- To force the system to Shutdown - press and hold the power button for 12 seconds.
- To bring the system out of sleep/standby mode - press the power button once or touch the screen.

Home Button
Pressing the Home Button returns whatever is currently being viewed, back to the Home Screen

Power Button Status	Description
Off	Off – No power to Android Device
Solid White	Switched On
Solid Orange	Switched Off
Flashing White	Standby Mode

6. Troubleshoot

6.1. Common Problems

Problem	Possible Cause	Solution
Screen is black - no video	• No power to the screen	• Plug power cord into connector on unit • Plug power cord into wall socket and switch on • "Check" Battery System is switched on
	• Screen Off – Power button light off	• Press screen Power Button once to switch on – Indicator solid green
	• Screen Idle – Power button flashing green	• Press screen Power Button once to switch on – Indicator solid green
	• Android Device off – Android Device Indicator off	• Press Android Device Power Button once to switch on – Indicator solid white
	• Android Device Switched Off – Android Device Indicator solid Orange	• Press Android Device Power Button once to switch on – Indicator solid white
"No Video Source Found" message showing	• Incorrect source has been selected	• Press the Source button and select the correct source
	• Android Device off – Android Device Indicator off	• Press Android Device Power Button once to switch on – Indicator solid white
	• Android Device Switched Off – Android Device Indicator solid Orange	• Press Android Device Power Button once to switch on – Indicator solid white
No Sound	• Screen Volume on 0	• Press the Screen Settings Menu (OSD) button. Select the Audio tab and adjust the volume as necessary
	• Android Volume on 0	• Navigate to the sound setting and adjust the volume as necessary

6. Troubleshoot

6.1. Common Problems continued

Problem	Possible Cause	Solution
Battery indicator flashing red	• Battery level low – charging required	• Plug power cord into connector on unit • Plug power cord into wall socket and switch on
Battery not charging	• No power to the Battery System	• Plug power cord into connector on unit • Plug power cord into wall socket and switch on
Battery unit not powering/turn on	• Battery level low – charging required	• Plug power cord into connector on unit • Plug power cord into wall socket and switch on
Screen Brightness too bright / dark	• Screen Brightness setting at Max / Min	• Press the Screen Settings Menu (OSD) button. Select the Video tab and adjust the brightness as necessary
Screen brightness flickers between light and dark	• Screen Brightness Sensor selected	• Press the Screen Settings Menu (OSD) button. Select the Video tab and disable the Brightness Sensor
Camera not coming on	• Permission not applied for the app	• Navigate to the apps menu. Find the camera app and allow the function
Camera screen black when selected	• Camera lens obscured	• Removed the obscurity and/or angle the camera towards the object
Height adjustment not working	• No power	• Plug power cord into connector on unit • Plug power cord into wall socket and switch on • “Check” Battery System is switched on

7. Technical information

7.1. Unit Specifications

Feature	Specification
Mains Input	230-240V~ 50Hz 5A
Battery Rating	12.8V 38Ah (486Wh) LiFePO4
Battery Model	Ultralife URB12350
Battery Runtime	Approx. 8hrs (new unit under usual operating conditions)
Height Range	Maximum Height (screen vertical) – 113 – 177cm
Temperature Range (Operating)	0°C to 35°C
Temperature Range (Storage)	0°C to 40°C

7. Technical information

7.2. Screen Specifications

Feature	Specification
Display	31.5" / 800.1 mm diagonal, active matrix TFT LCD
Active Display Area (W x H)	27.5" x 15.47" / 698.4 mm x 392.9 mm
Native Resolution	Full HD 1920 x 1080 @ 60Hz
Pre-set Video Timings	640x480 60Hz; 800x600 56/60Hz; 1024x768 60Hz; 1280x720 60Hz; 1280x960 60Hz; 1280x1024 60Hz; 1920x1080 50/60Hz
Touch Technology	TouchPro® PCAP - up to 40 touches with palm rejection and touch thru capability
Touch Thru	TouchPro® PCAP supports up to 6mm glass/3mm plastic with up to 2 touches. Supports gloves up to 1.4mm.
Aspect Ratio	16:9
Number of Colours	16.7 million, 8bit(D)
Brightness (typical)	LCD Panel 500 nits; with PCAP 430 nits
Response Time (Tr + Tf) (typical)	8 msec
Viewing Angle (typical)	Horizontal: ±89°/178° total; Vertical: ±89°/178° total
Contrast Ratio (typical)	3000:1

7. Technical information

7.3. Android Device Specifications

Feature	Specification
Operating System	Android™ 10
Processor	Qualcomm SDA660
Memory	4GB RAM
Internal Storage	64GB NAND flash memory
Micro-SD	Support for microSD cards (up to 128GB)
Wi-Fi + Bluetooth	IEEE 802.11a/b/g/n/ac + Bluetooth 5.0 with BLE via external antenna
USB Port	1x USB Type C 4x USB 3.0 Type A
General Purpose Input/Output	1x GPIO slot available
Video ports	1x HDMI up to 4k30 1x Type C up to 1080p
Ethernet	10/100/1000Mbps RJ45 Port

8. Warranty

How long is my warranty covered and what am I covered for?

3-year mechanical

3-year electrical

✓	x
- Faulty workmanship - Faulty parts	- General wear and tear - Third party alterations - Vandalism - Misuse

Can I extend my warranty?

We offer an option to extend the standard mechanical warranty to 5-years, please contact your reseller to discuss further.

How do I order spare parts?

Spare parts can be ordered via email or over the phone, please contact your reseller to discuss further.

Are any batteries covered as part of my warranty?

Batteries are classed as consumable items, and are covered under our standard warranty terms.

Batteries naturally wear through repeated charge and discharge cycles, however we use a high quality product to give the best possible performance.

The ability of all rechargeable batteries to hold their charge decreases with time and therefore a battery is considered to be faulty where it fails to power the machine following a full charging cycle.

9. Faults and Repair

We hope you never need this, but on the rare occasion something isn't quite right, we will always try our hardest to fix any problems you may come across.

Contact information

If something is wrong with your product, please contact your reseller who will help to troubleshoot the issue, and arrange and support required.



10. Manufacturer Information

Company:
Dalen Limited

Company Number:
01542645

Registered:
Valepits Road, Garretts Green, Birmingham,
B33 0TD UK

T: 0121 783 3838
E: sales@dalen.co.uk
W: www.dalen.co.uk

Please record your serial number here for easy access

Accreditations

- ISO 9001:2015 for Quality Management
- ISO 14001:2015 for Environmental Management
- ISO 45001:2018 for Occupational Health and Safety Management systems
- Contractors Health and Safety Assessment Scheme
- Constructionline

Environmental Best Practice

Environmental considerations are paramount at every stage and for us sustainability begins with quality. We actively promote environmental best practice throughout the manufacturing and product life cycle and have recently been awarded ISO14001 and ISO45001. We actively recycle across our whole site.