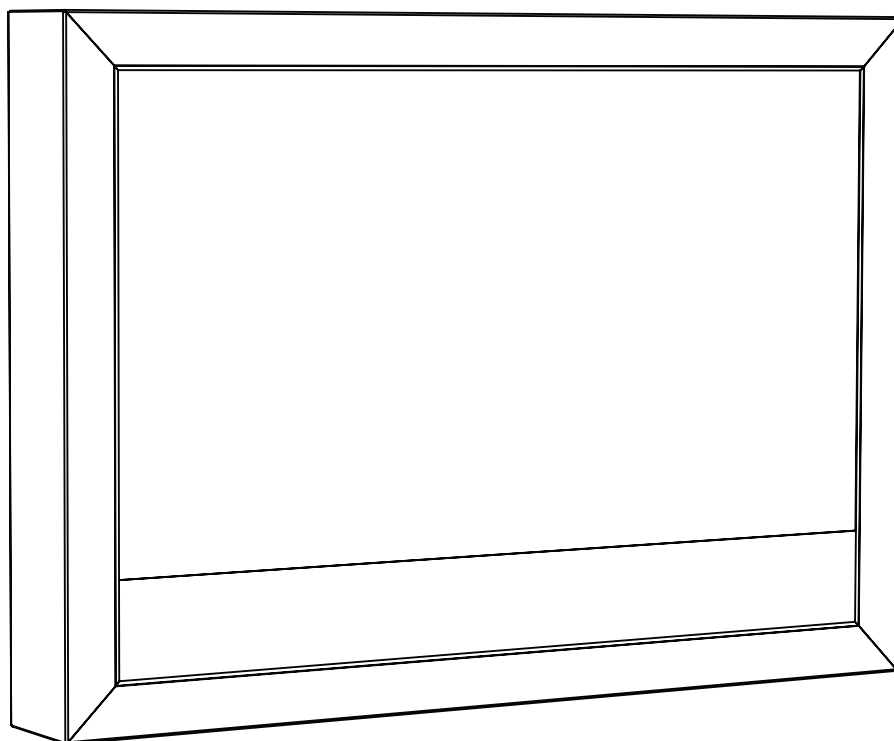


NEC

MD461OR

INSTALLATION & MAINTENANCE GUIDE



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Important Information



WARNING



TO PREVENT FIRE OR SHOCK HAZARDS, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE. ALSO, DO NOT USE THIS UNIT'S POLARIZED PLUG WITH AN EXTENSION CORD RECEPTACLE OR OTHER OUTLETS UNLESS THE PRONGS CAN BE FULLY INSERTED.

REFRAIN FROM OPENING THE CABINET AS THERE ARE HIGH VOLTAGE COMPONENTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



CAUTION



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, MAKE SURE POWER CORD IS UNPLUGGED FROM WALL SOCKET. TO FULLY DISENGAGE THE POWER TO THE UNIT, PLEASE DISCONNECT THE POWER CORD FROM THE AC OUTLET. DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

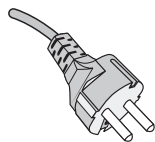
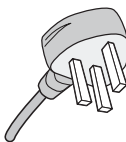


This symbol warns user that uninsulated voltage within the unit may have sufficient magnitude to cause electric shock. Therefore, it is dangerous to make any kind of contact with any part inside this unit.



This symbol alerts the user that important literature concerning the operation and maintenance of this unit has been included. Therefore, it should be read carefully in order to avoid any problems.

CAUTION: Please use the power cord provided with this monitor in accordance with the table below. If a power cord is not supplied with this equipment, please contact your supplier. For all other cases, please use a power cord that matches the AC voltage of the power outlet and has been approved by and complies with the safety standard of your particular country.

Plug Type	European Continental	U.K.
Plug Shape		
Country	EU (except U.K.)	U.K.
Voltage	230	230

NOTE: This product can only be serviced in the country where it was purchased.

Declaration

Declaration of the Manufacturer

Means of Conformity

Device Classification: Class I, non-measuring function
Applicable Rules: Annex IX, Rules 1.4 (Section 1) and 1.1 (Section 3)
Product Name: MD461OR
46" Operating Room Solution
Model Number: MD461OR
UMDNS Code: 16-603

NEC Display Solutions Europe GmbH declares that the product listed is in conformity with the essential requirements and provisions of the Council Directive 93/42/EEC, including the amendments of the Council Directive 2007/47/EC, and conforms to the applicable clauses of the following standards:



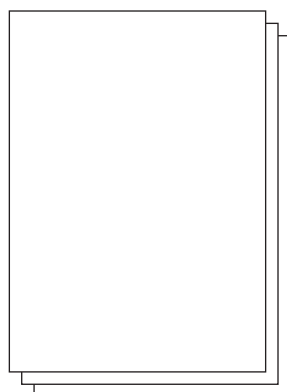
NEC Display Solutions Europe GmbH
Landshuter Allee 12-14. 80637 Muenchen, Germany

NOTE: The **MultiSync P462 User's Manual**, is an integral part of this product. For all items exceeding the scope of this Installation & Maintenance Guide, please refer to the **MultiSync P462 User's Manual**.

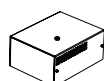
Contents

Your new MD461OR box* should contain the following main components:

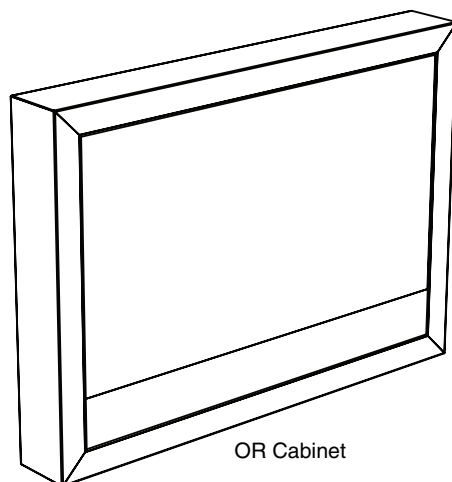
- OR Cabinet (incl. wall bracket x 1, display bracket x 2)
- LCD monitor MultiSync P462
- Power cord*¹
- Wireless Remote Control and AA Batteries
- MD461OR Installation and Maintenance Guide
- MD461OR Quick Reference Guide
- MultiSync P462 User's Manual
- Medical Transformer (incl. jumper cable x 1)
- IR Sensor



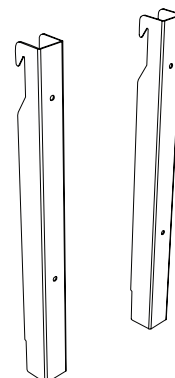
MD461OR Maintenance &
Installation Guide
MD461OR Quick Reference
Guide
P462 User's Manual



Medical
Transformer



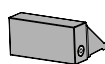
OR Cabinet



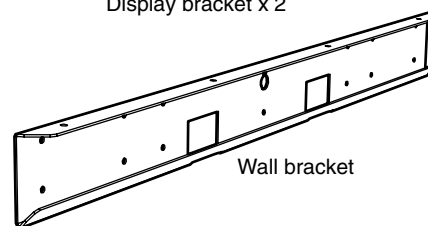
Display bracket x 2



Wireless Remote Control
and AA Batteries



IR Sensor

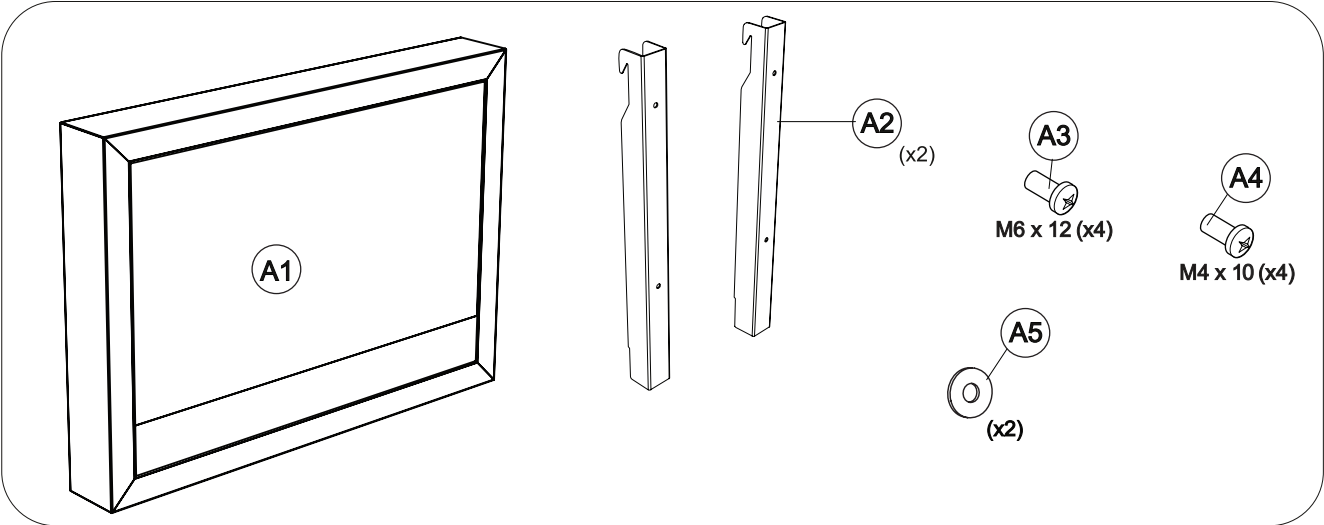
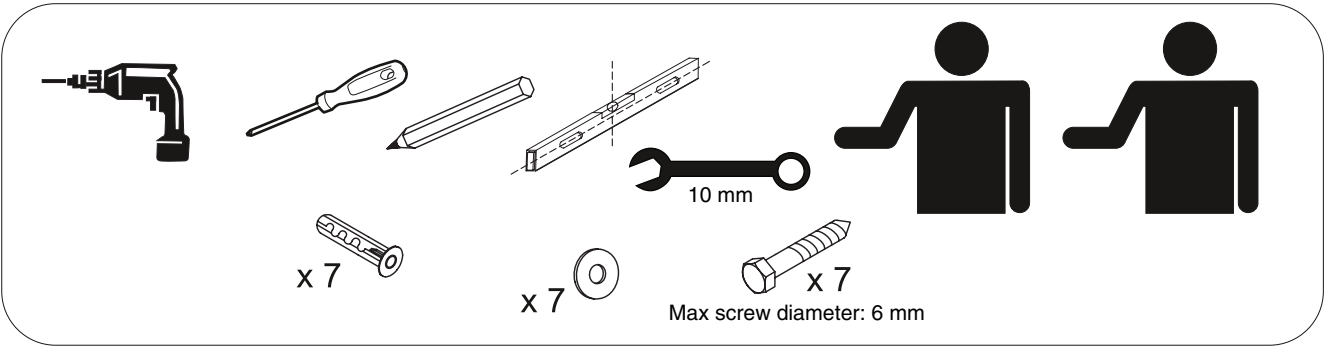


Wall bracket

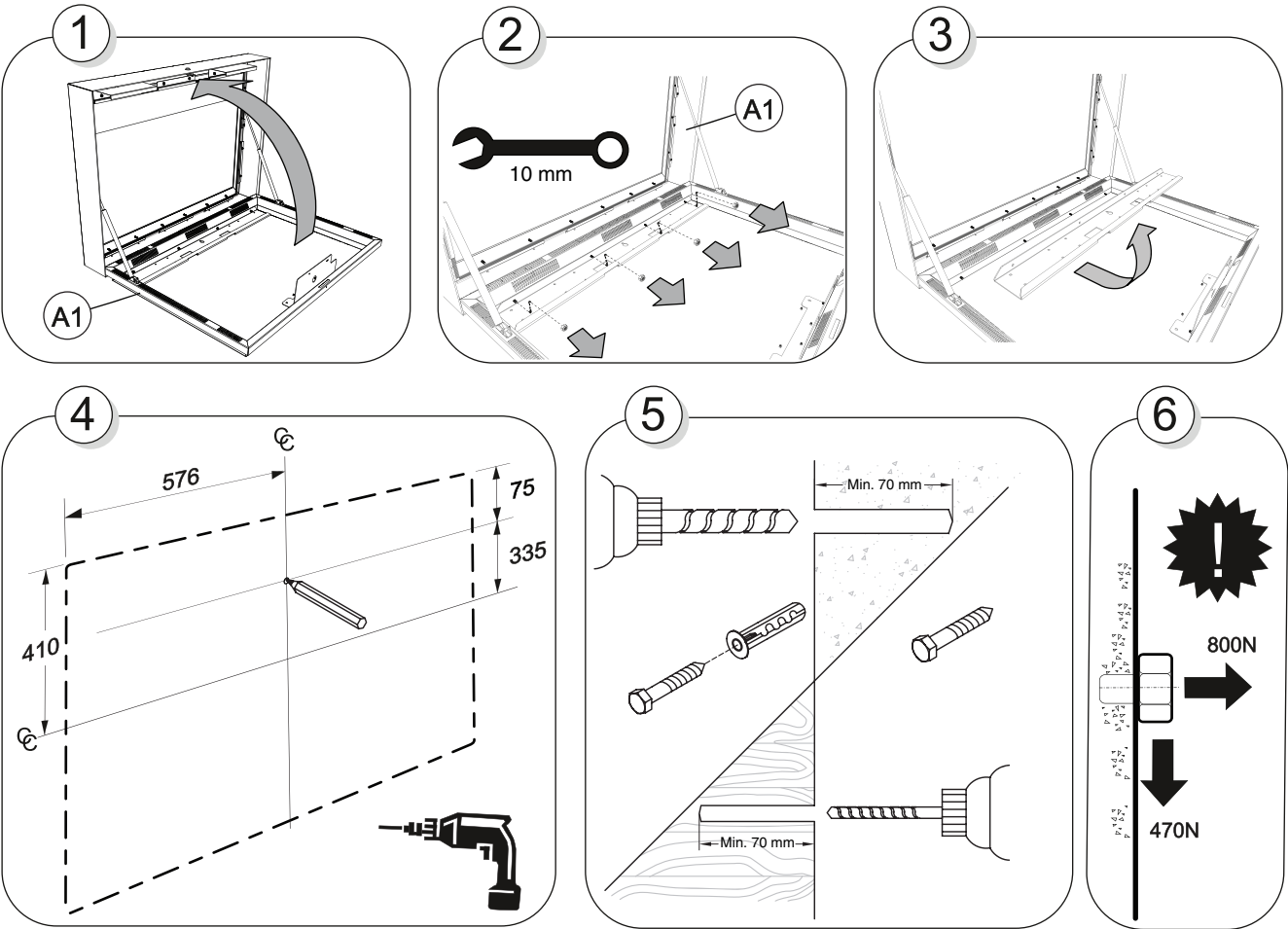
* Remember to save your original box and packing material to transport or ship the monitor.

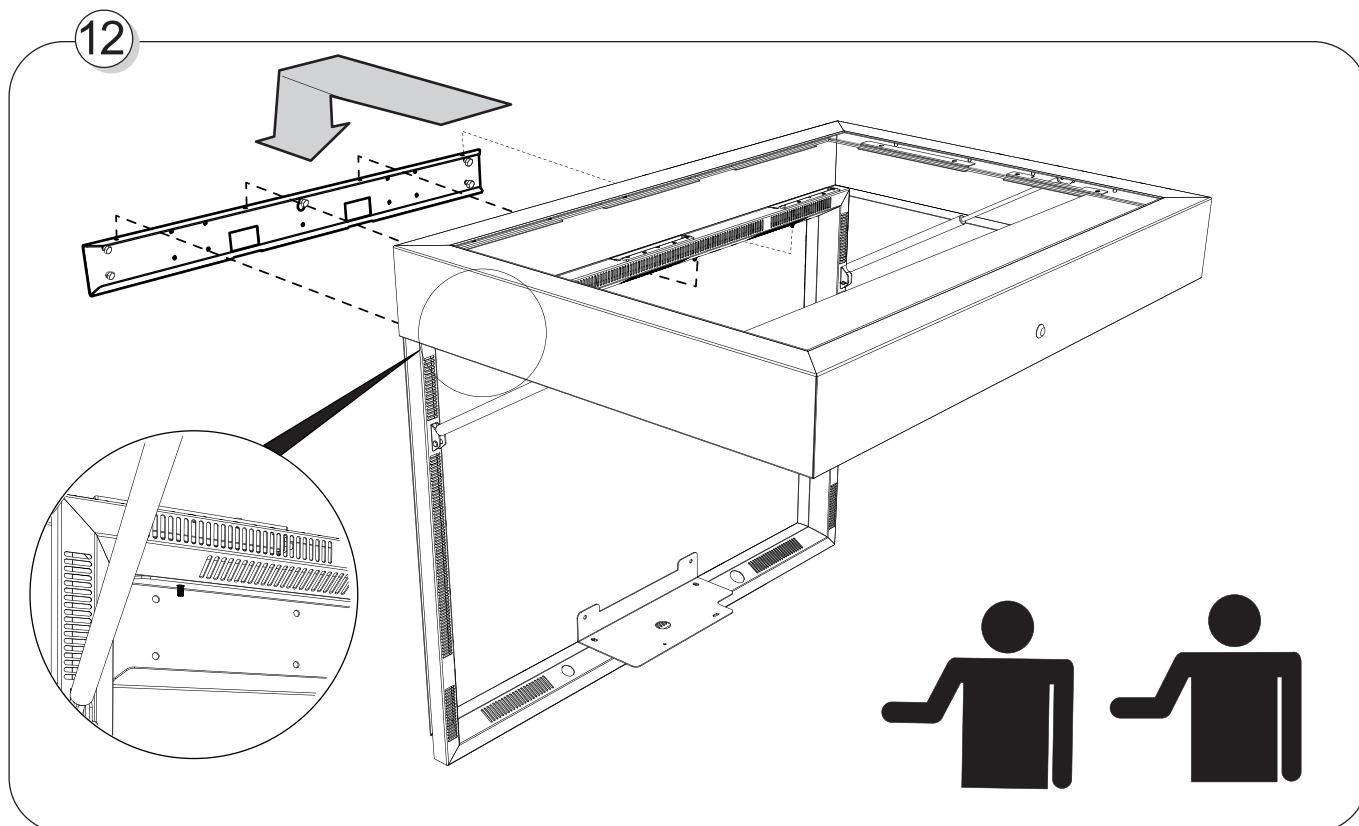
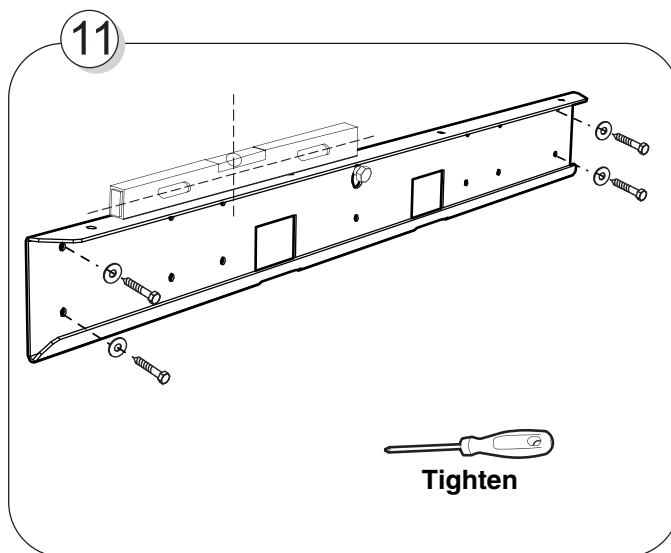
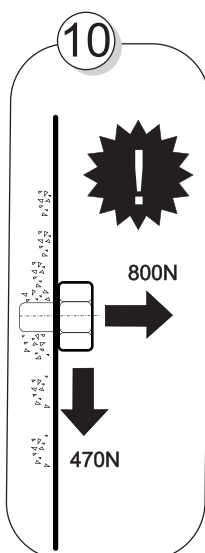
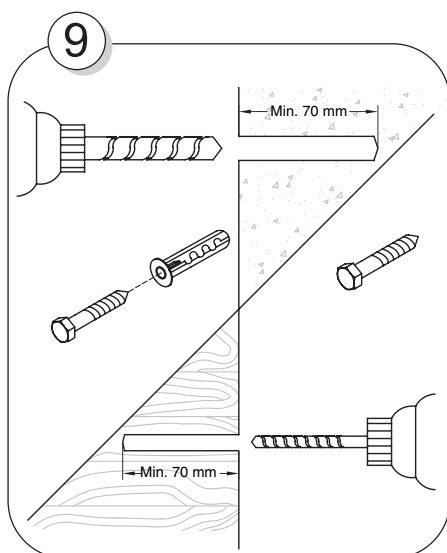
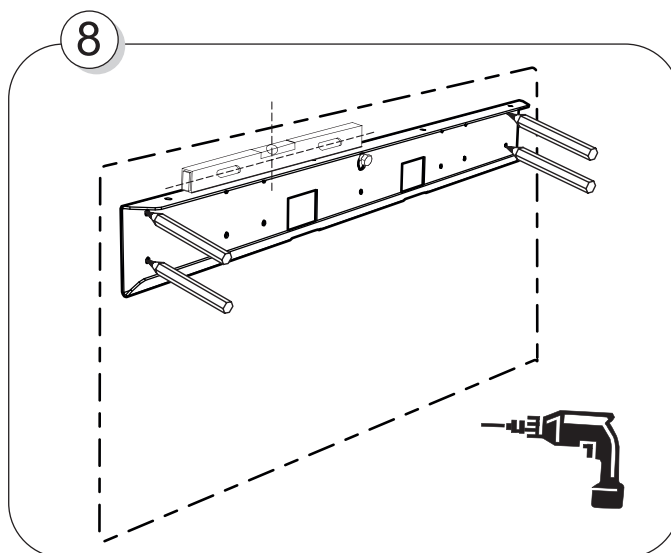
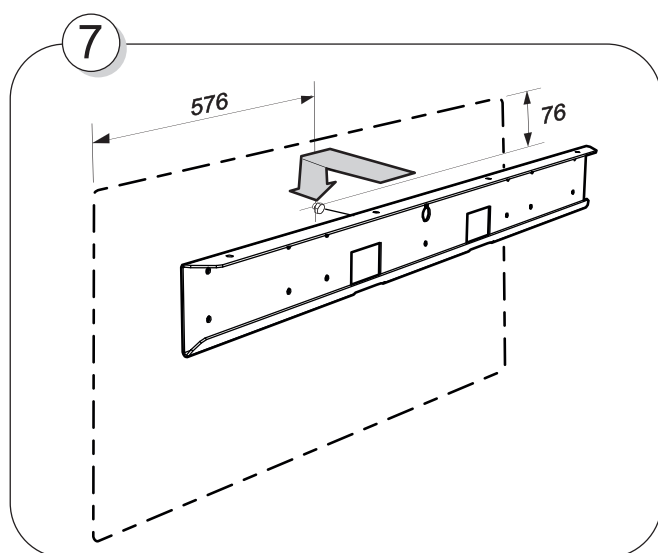
*¹ Type and number of power cords included will depend on the where the LCD monitor is to be shipped. When more than one power cord is included, please use a power cord that matches the AC voltage of the power outlet and has been approved by and complies with the safety standard of your particular country.

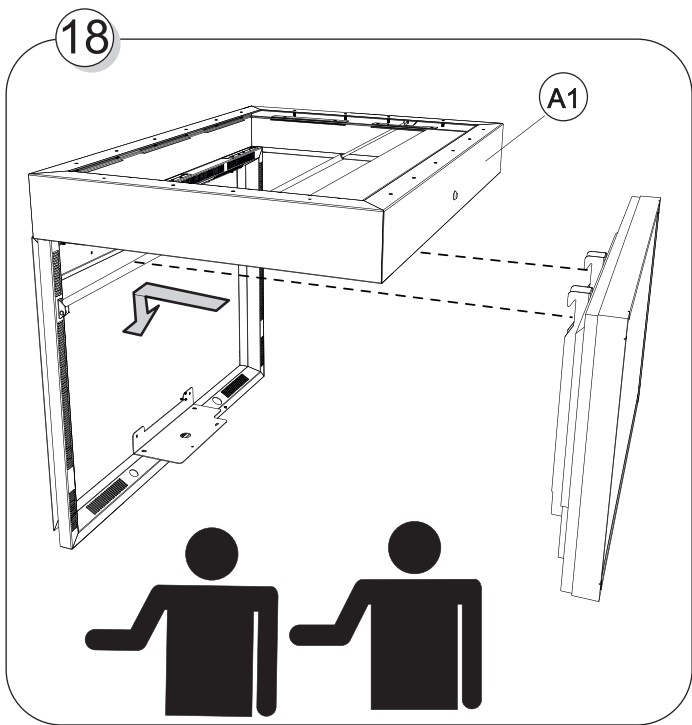
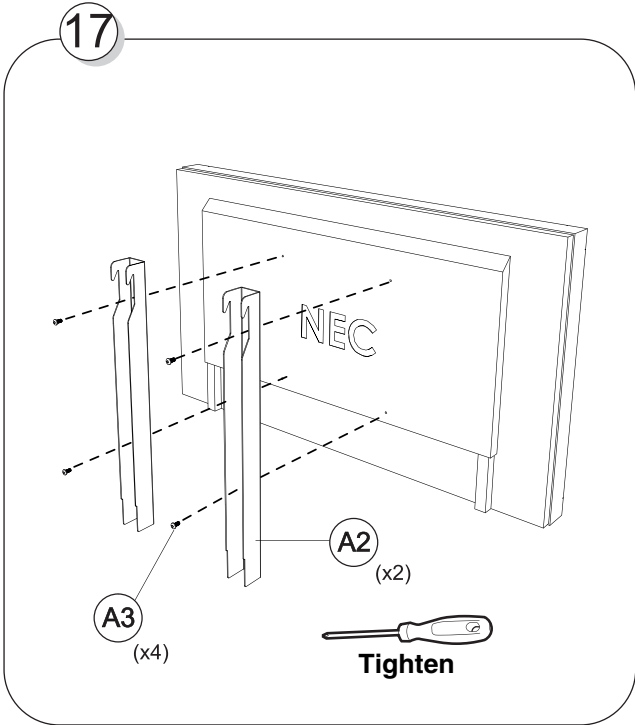
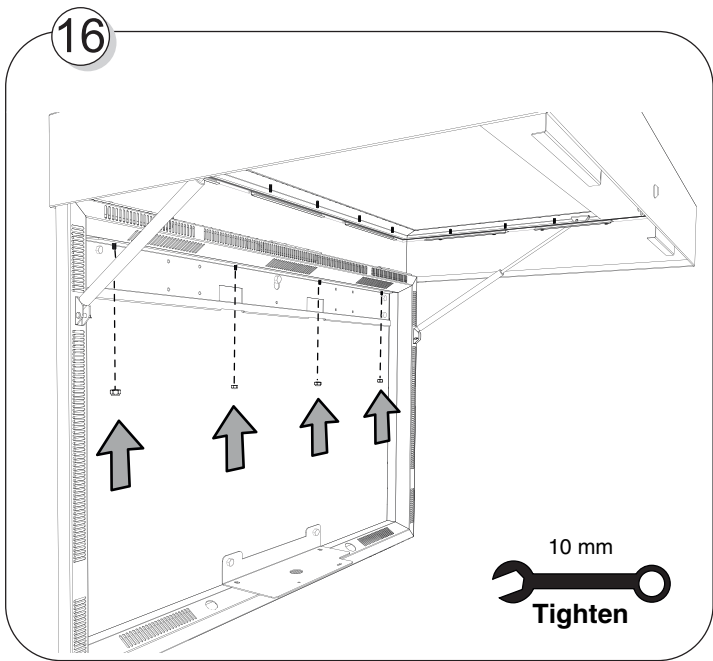
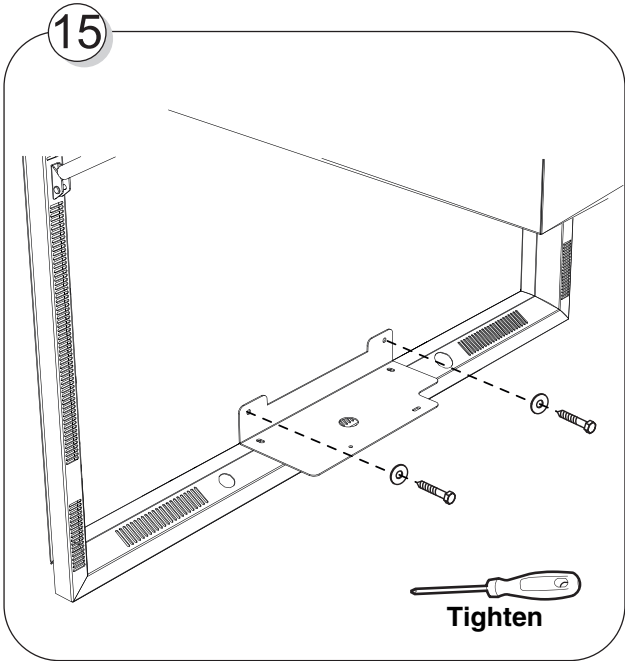
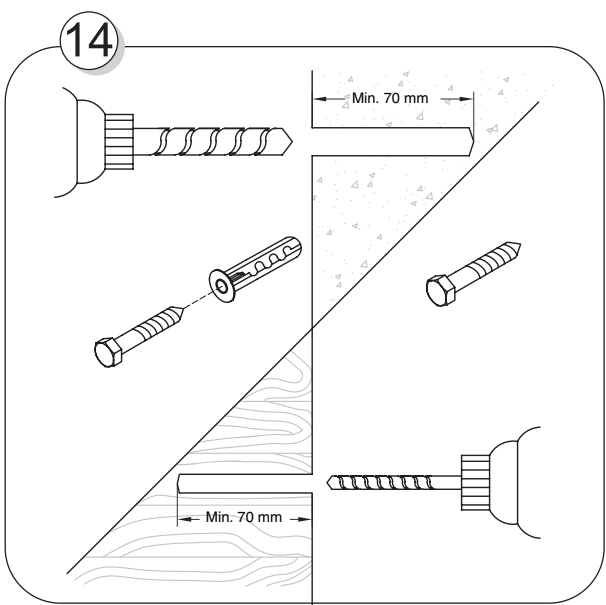
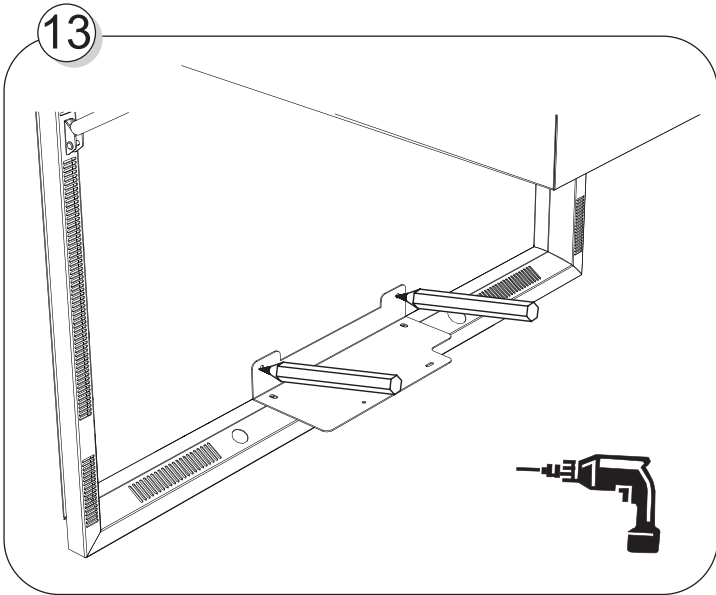
MD461OR Installation

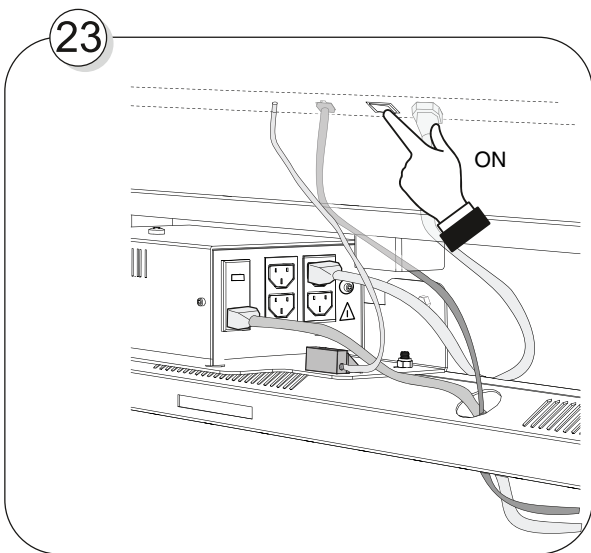
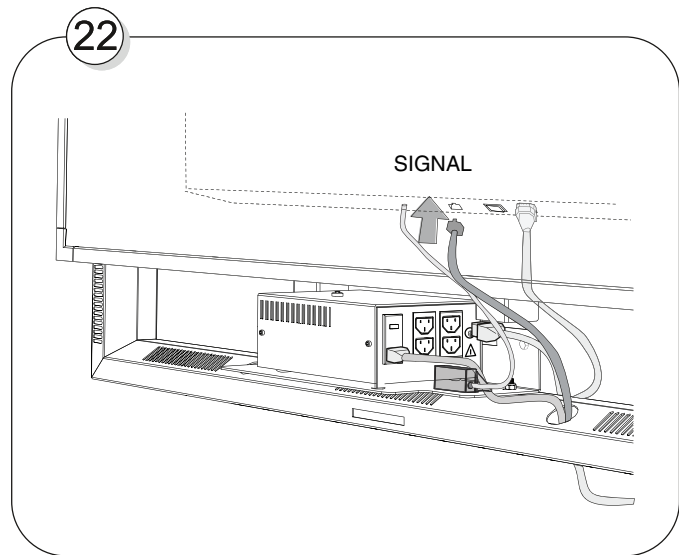
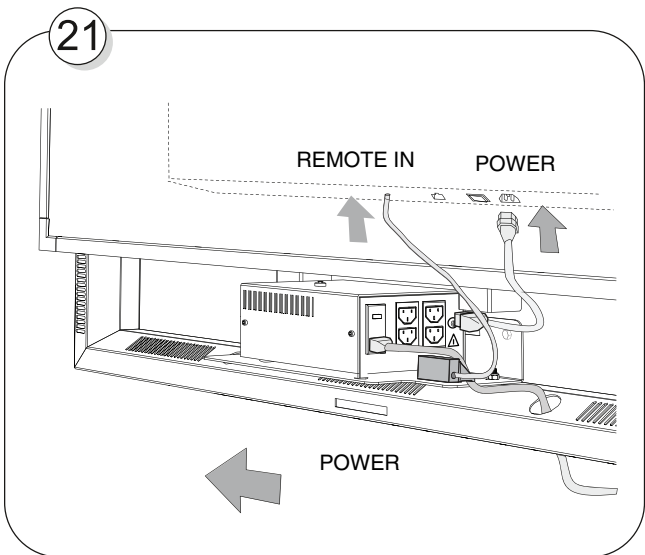
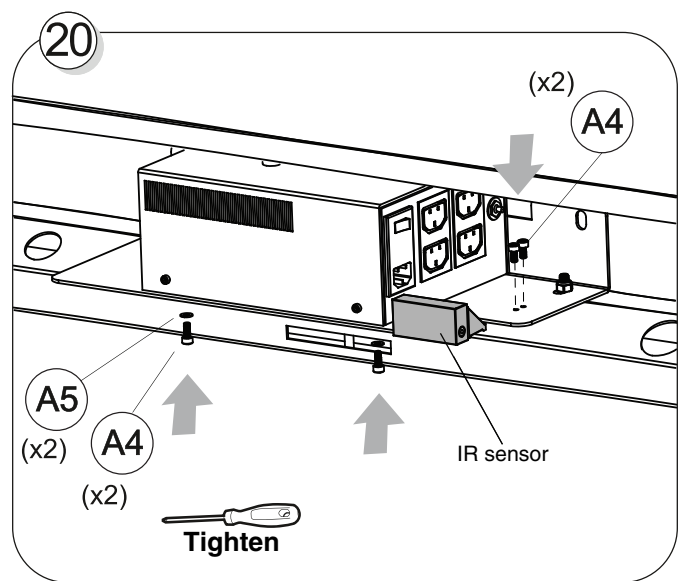
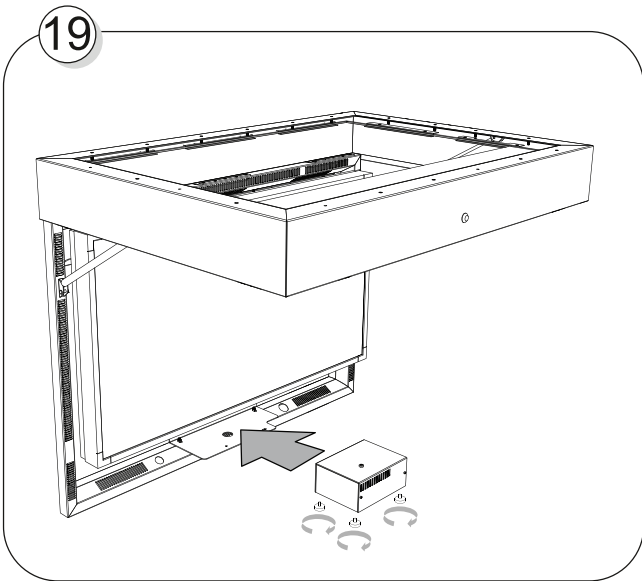


Mounting









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Fan Settings

ATOM SBC

RGB

PICTURE

AUDIO

SCHEDULE

PIP

OSD

12

PROTECT

PRO

DISPLAY PROTECTION:

POWER SAVE

STANDBY MODE

HEAT STATUS

FAN CONTROL

SCREEN SAVER

SIDE BORDER COLOR

AUTO BRIGHTNESS

CHANGE SECURITY PASSWORD

SECURITY LOCK

DDC/CI

DISPLAY PROTECTION RESET

COOLING FAN

FAN SPEED

ON / LOW

AUTO / HIGH

SENSOR 1:

75 / 75 °C

SENSOR 2:

74 / 74 °C

SENSOR 3:

59 / 59 °C

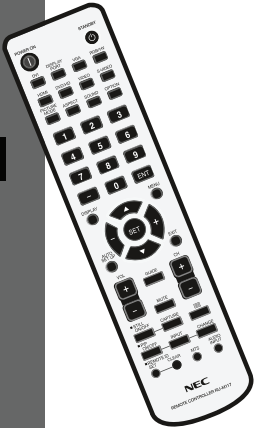
▲▼:Select

⊕⊖:Choose

SET:Decide

EXIT:Return

MENU:Close



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Backlight settings, max 70%
Gamma Correction Settings, DICOM SIM.

HDMI

RGB

PICTURE

ADJUST

AUDIO

SCHEDULE

PIP

OSD

12

PROTECT

ADVANCED

PICTURE:

BACKLIGHT

CONTRAST

SHARPNESS

BRIGHTNESS

HUE

COLOR

COLOR TEMPERATURE

COLOR CONTROL

GAMMA CORRECTION

MOVIE SETTINGS

PICTURE MODE

RESET

-

+

70

-

+

50

-

+

50

-

+

50

-

+

50

-

+

50

-

+

50

THANK YOU FOR SAVING
THE ENVIRONMENT.
CARBON FOOTPRINT 86.0 %

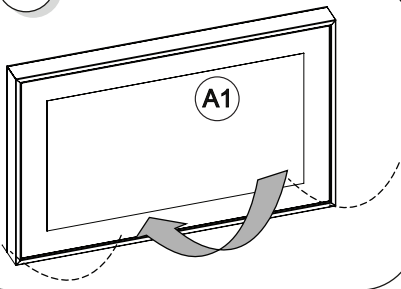
▲▼:Select

⊕⊖:Goto Adjustment

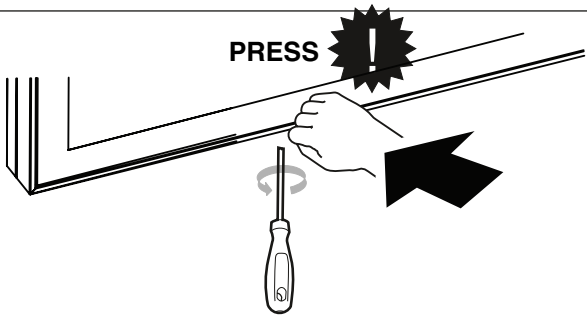
EXIT:Return

MENU:Close

26

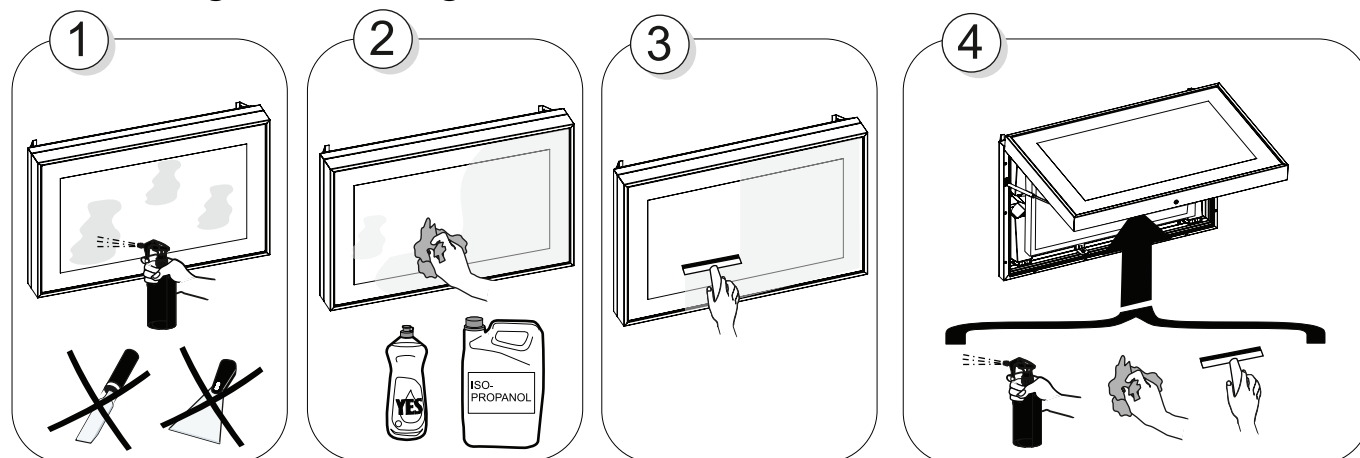


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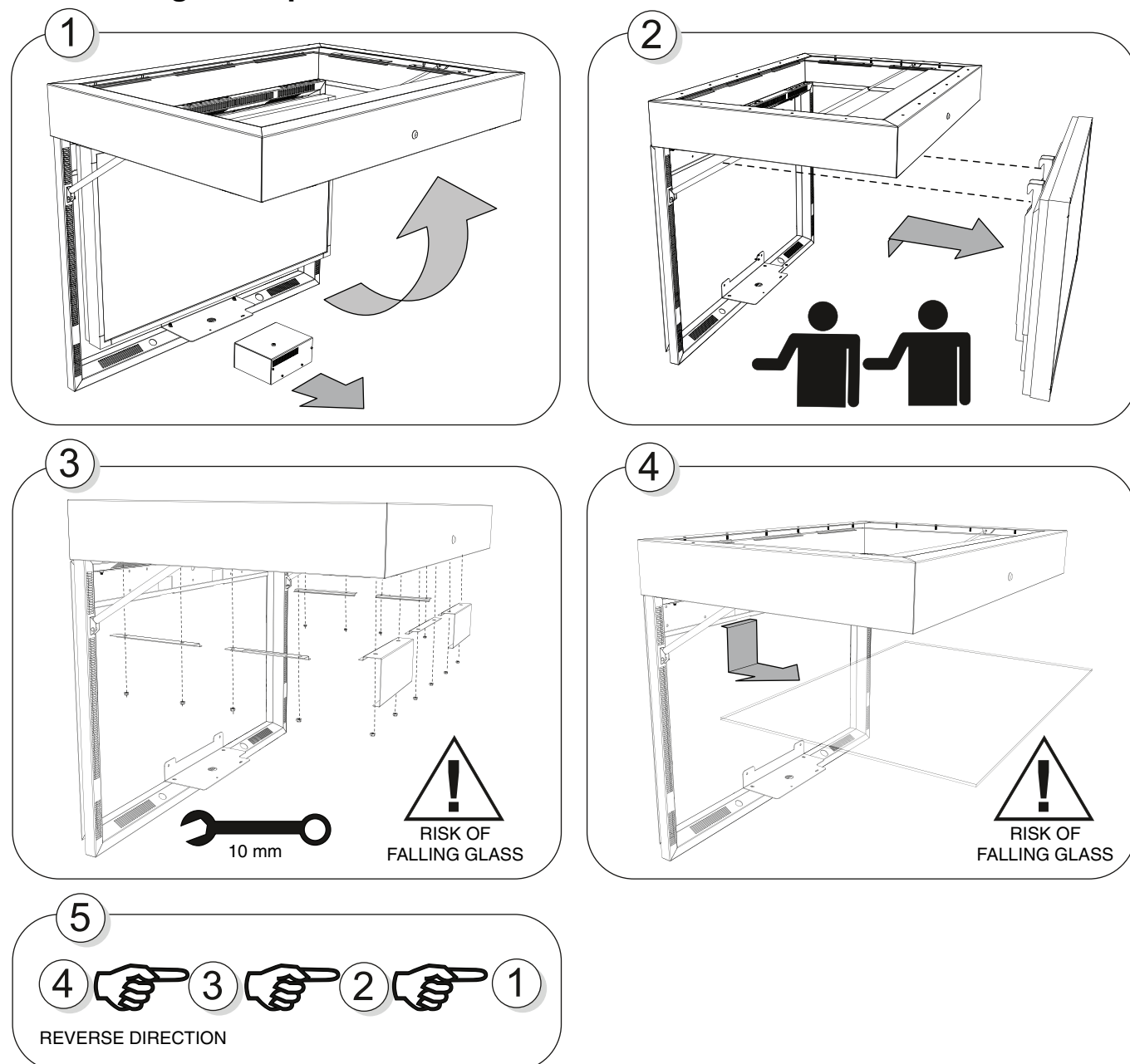


MD461OR Maintenance

Protection glass cleaning

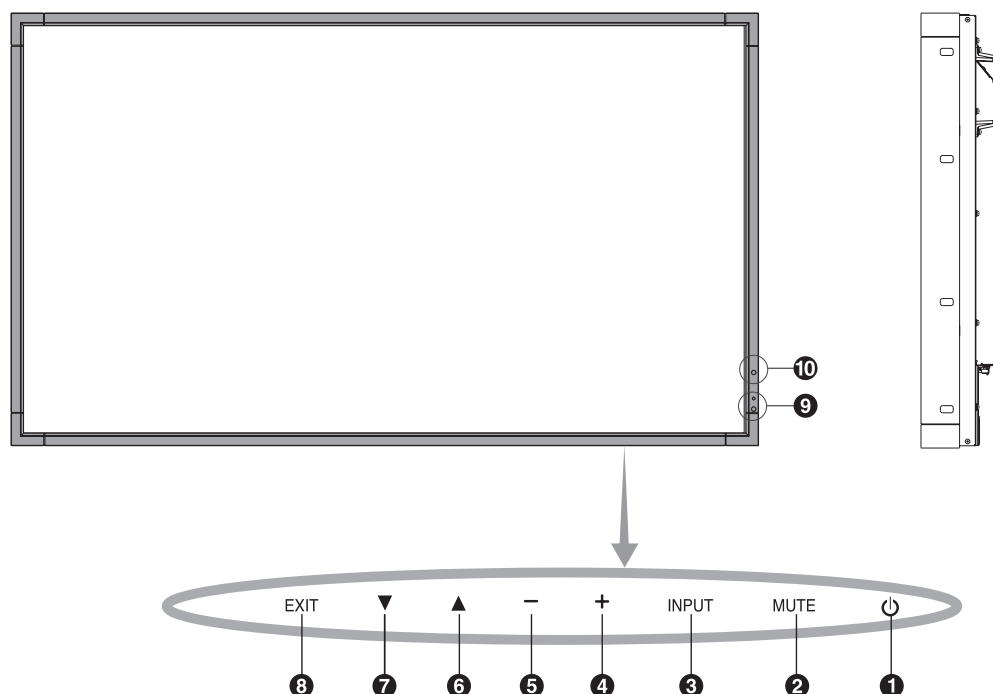


Protection glass replacement



Control and Interface (see attached display manual for details)

Control Panel



1 POWER button

Switches the power on/off.

2 MUTE button

Switches the audio mute ON/OFF.

3 INPUT button

Acts as SET button within OSD menu. (Toggle switches between [DVI], [DPORT], [VGA], [RGB/HV], [HDMI], [DVD/HD], [SCART], [VIDEO1], [VIDEO2] or [S-VIDEO]). These are available input only, shown as their factory preset name.

4 PLUS button

Acts as (+) button to increase the adjustment with OSD menu. Increases the audio output level when the OSD menu is turned off.

5 MINUS button

Acts as (-) button to decrease the adjustment with OSD menu. Decreases the audio output level when the OSD menu is turned off.

6 UP button

Activates the OSD menu when the OSD menu is turned-off. Acts as ▲ button to move the highlighted area up to select adjustment items within OSD menu.

7 DOWN button

Activates the OSD menu when the OSD menu is turned-off. Acts as ▼ button to move the highlighted area down to select adjustment items within OSD menu.

8 EXIT button

Activates the OSD menu when the OSD menu is turned-off. Acts as EXIT button within the OSD to move to previous menu.

9 Remote control sensor and Power Indicator

Receives the signal from the remote control (when using the wireless remote control).

Glow green when the LCD monitor is in active mode*.

Glow red when the LCD is in POWER OFF mode.

Glow amber when the monitor is in Power Save Mode.

Green and Amber blink alternately while in Power Standby mode with the "SCHEDULE SETTINGS" function enabled.

When a component failure is detected within the monitor, the indicator will blink red.

* If "OFF" is selected in "POWER INDICATOR", LED will not light when the LCD monitor is in active mode.

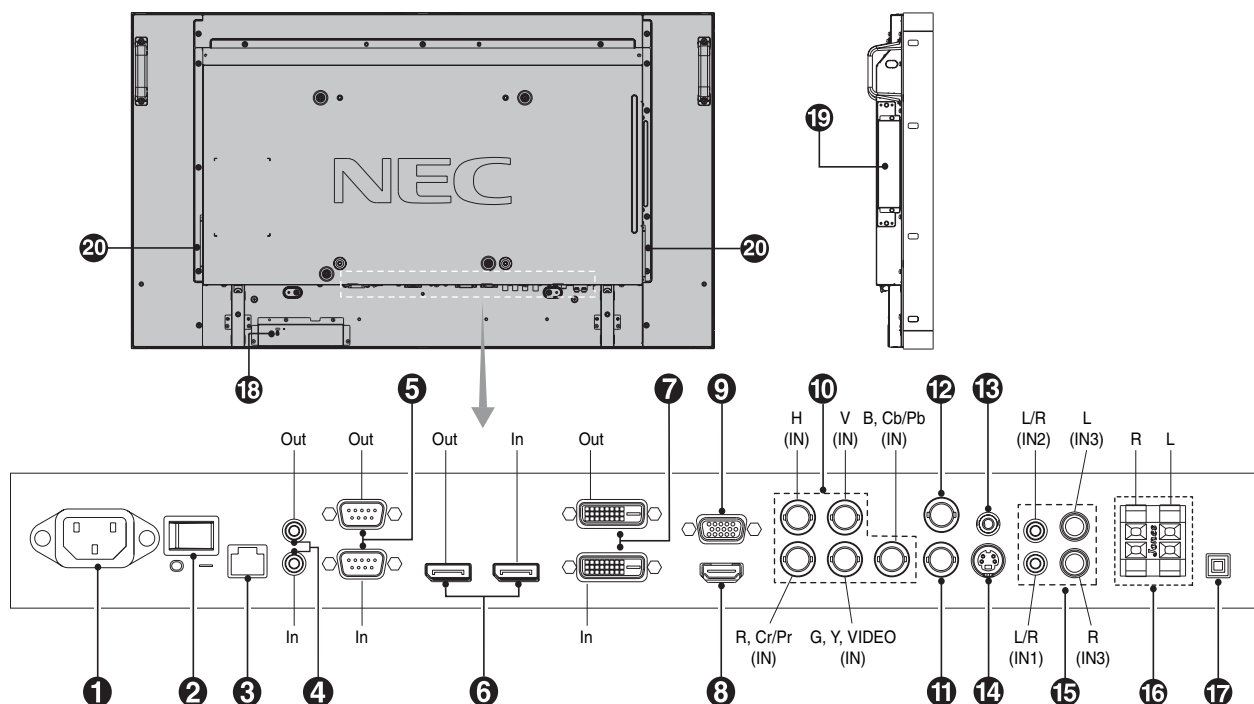
10 AMBIENT LIGHT SENSOR

Detects the level of ambient light, allowing the monitor to make automatic adjustments to the brightness setting, resulting in a more comfortable viewing experience. Do not cover this sensor.

Control Key Lock Mode

This control completely locks out access to all Control Key functions. To activate the control key lock function, press both ▼ and ▲ and hold down simultaneously for more than 3 seconds. To resume user mode, press both ▼ and ▲ and hold simultaneously for more than 3 seconds.

Terminal Panel



1 AC IN connector

Connects with the supplied power cord.

2 Main Power Switch

On/Off switch to turn main power ON/OFF.

3 LAN port (RJ-45)

LAN connection.

4 REMOTE IN/OUT

Use the optional wired remote control by connecting it to your monitor.

NOTE: When you use Remote IN/OUT, IR CONTROL in OSD menu should be NORMAL.

NOTE: Do not use this connector unless specified.

5 RS-232C (D-Sub 9 pin)

IN connector: Connect RS-232C input from external equipment such as a PC in order to control RS-232C functions.

OUT connector: Connect RS-232C output. To connect multiple MultiSync monitors via RS-232C daisy Chain.

6 DISPLAYPORT connector

IN connector: To input DisplayPort signals.

OUT connector: To output DisplayPort signals.

NOTE: DisplayPort connectors are for image only. No sound comes out.

7 DVI (DVI-D)

IN connector: To input digital RGB signals from a computer or HDTV device having a digital RGB output.

* This connector does not support analog input.

OUT connector: To output the DVI signal from either DVI IN or HDMI connection. To output the DVI signal from the HDMI connection, the HDMI input must be selected.

8 HDMI connector

To input digital HDMI signals.

9 VGA IN (mini D-Sub 15 pin)

To input analog RGB signals from a personal computer or from other RGB equipment.

10 RGB/HV IN [R, G, B, H, V] (BNC)*

To input analog RGB signals or signals from other RGB equipment.

This is also to connect equipment such as a DVD player, HDTV device and Set-Top-Box. Sync-on-Green signal can be connected to the G connector.

This input can be used with an RGB, DVD/HD or Video source. Please select signal type in TERMINAL SETTING.

11 VIDEO1 IN connector (BNC)*

To input a composite video signal.

12 VIDEO OUT connector (BNC)

To output the composite video signal from the VIDEO IN connector.

13 AUDIO OUT

To output the audio signal from the AUDIO IN 1, 2, 3 and HDMI to an external device (stereo receiver, amplifier, etc.).

14 S-VIDEO IN connector (Mini DIN 4 pin)

To input the S-video (Y/C separate signal).

15 AUDIO IN 1, 2, 3

To input audio signal from external equipment such as a computer, VCR or DVD player.

16 EXTERNAL SPEAKER TERMINAL

To output the audio signal from AUDIO 1, 2, 3 and HDMI. Red terminal is plus (+).

Black terminal is minus (-).

Note: This speaker terminal is for 15W + 15W (8 ohm) speaker.

17 Internal/External speaker switch

Switch to turn internal speaker/external speaker.

: Internal speaker : External speaker.

NOTE: Please power off the monitor when you use the Internal/External speaker switch.

18 Kensington Lock

For security and theft prevention.

19 Option board slot

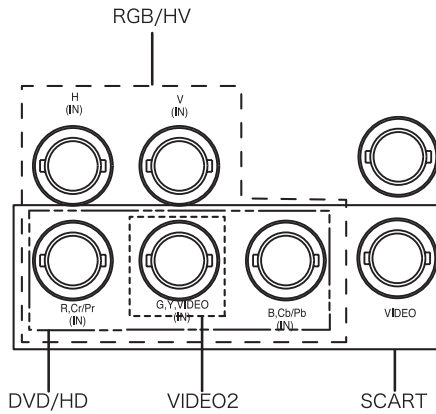
Slot 1 and slot 2 type accessories are available. Please contact your supplier for detailed information.

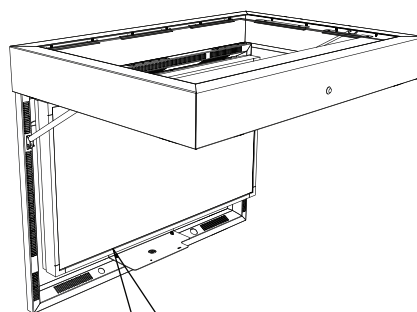
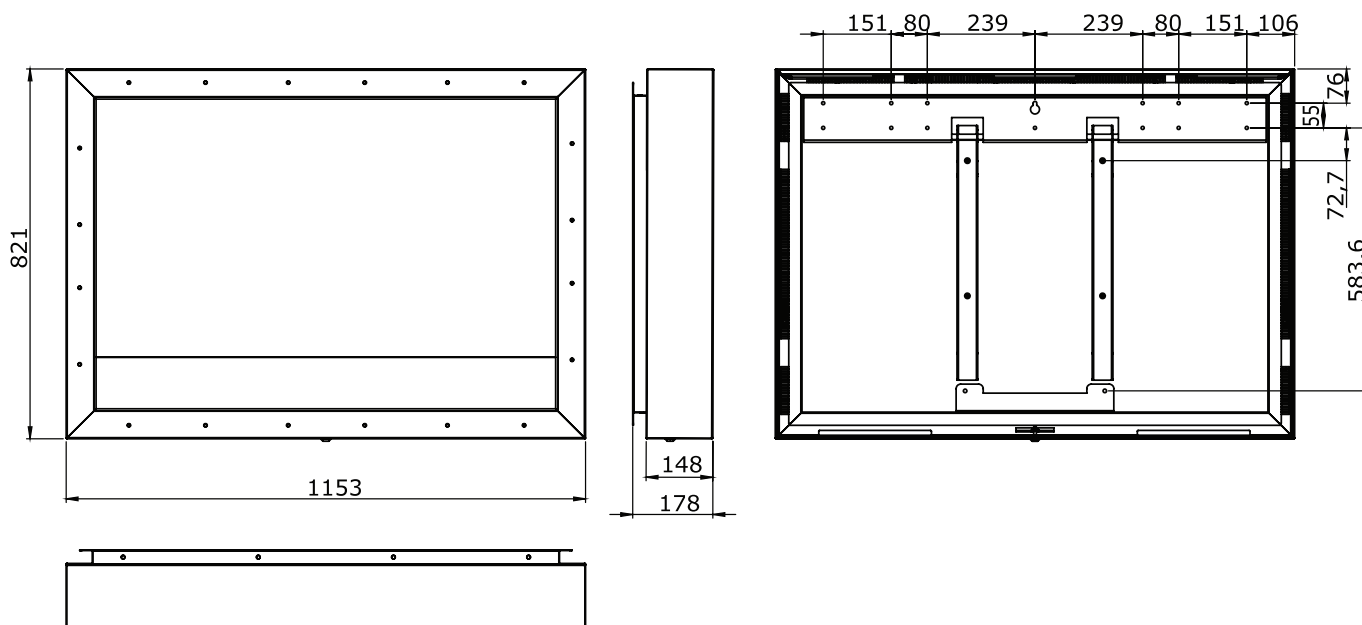
NOTE: Please contact your supplier for available option board.

NOTE: When you use slot 2 type option board, you need to install it with the optional “SB-02AM” adapter.

20 Internal speaker

* BNC input signal





Max 35 kg

Maximum weight of display inside the cabinet is 35 kg

Dimension	Tightening torque
M6	11.1 Nm
M8	26.6 Nm

	+5° - +30°
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* Specifications and design are subject to change without prior notice.

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English-12