

VT320X & VT460X Display
32" and 46" OUTDOOR Installation Guide



This manual outlines the precautions and procedures to be taken when installing the displays. Read this manual carefully prior to using the display.

1. **Warnings**

The Manufacturer does not warrant this unit for defects or damages that are the result of mis-use, neglect or from not having followed the recommended installation instructions or from improper operation.

Service work **MUST** be performed only by qualified service personnel who are thoroughly familiar with all the following checks and servicing guidelines.

During handling, please use proper clothing to prevent accidents (gloves - shoes etc).

For continued safety, no changes should be made to the circuits unless authorized in writing by the manufacturer.

Please ensure that no built-in protective devices are defective and/or have been disabled during servicing.

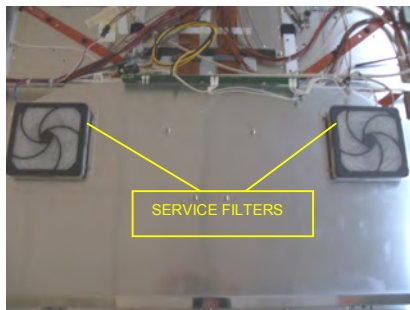
The manufacturer reserves the right to carry out modifications to the product described in this documentation.

Manufacturer does not warrant any damages to persons or devices that are not properly connected by means of a protective earth as per local general safety regulations.

2. **Precautions during installation**

Before opening the front it is necessary to secure the display to a support. This support must sustain the display weight without overturning when the front is open.

In case of opening of the module, always unplug appliance from electrical outlet. Upon opening, install the protective Service Filters provided over the fans. This keeps out all foreign material from entering the LCD.



Remove the Service Filters before closing and stow them away before operating the module.

Do not place the display on top of an unstable location as this may cause injuries to people if the display falls or tips over.

During the installation procedure the display glass must be touched as little as possible.

Do not twist the front assembly because this action could break the glass or the panel.

Never move the display by pulling only the front part.

To open the front there are two gas assist springs. These springs can sometimes stick and also the gasket may stick if the units have not been opened for a long time, this is normal. You must slowly open the front making sure it is not binding.

Do not lift the display using suction cup handles or similar tools.

Be sure to operate the display only within the specified power supply voltage range.

Use of an incorrect voltage will cause malfunctioning and may cause fire or electric shocks.

The temperature and humidity values must remain in the allowed range:

-20°C to +45°C for direct Sunlight applications
-20°C to +50°C for non-direct Sunlight applications
Humidity 10% - 90% RH max (Ta<=39°)

Do not put the display near excessive sources of heat, dampness or water as exposure to these excessive elements may affect the display.

When servicing, during direct exposure of Sunlight on the face of the LCD, it is recommended to cover the surface of the TFT panel to avoid excessive solar loading onto the LCD. This can be accomplished by using a cloth such as a sheet or with a service tent.

When servicing, never spill liquid of any kind onto the product. Should any liquid or solid object fall into or inside the cabinet, unplug the display and have it checked and cleaned by qualified service personnel before resuming operations.

Be sure that no built-in protective devices are defective and/or have been disabled during servicing.

Before closing the module, check that none of the cables are over the fan, check that all cables are inside the internal profile of module, check and pull the cables from the front so they cannot be trapped between any component parts.

The equipment is provided with a locking key that must be kept by Service Personnel and not rendered available to the operator.

3. Precautions during usage

Never use the display if the power cable has been damaged.

The air inlets on the display provide sufficient ventilation to ensure that it operates properly without overheating. Do not block these openings.

If the display does not operate normally - in particular, if there are any unusual sounds or smells coming from it - switch it off immediately and contact the service centre.

Switch off the display when it is going to be left unused for an extended period of time.

High voltage circuits are present inside the display. Removing the cabinet may expose you to the danger of fire or electric shocks.

After installing, clean the whole display with a soft clean lint-free cloth to remove dust and other particles and take care not to scratch the front glass surface of the display.

4. **Building Installation - Disconnect Device and Branch Circuit Protection**

A readily accessible and suitable disconnect device **must** be provided as part of the building installation. The purpose of the disconnect device is to provide an easy and accessible means for removing power from the product for servicing.

A readily accessible and suitable branch circuit protection device **must** be provided as part of the building installation. The purpose of branch circuit protection is to limit current in the case of a fault.

The disconnect device may also provide branch circuit protection (for example, a circuit breaker). Alternately, separate disconnect and branch circuit protection devices (fuses and a disconnect switch) may be employed.

The devices must be rated based on the plate rating of the product in accordance with the applicable local codes and specific customer requirements.

Branch circuit protection is commonly selected based on 125% of the product input rating. Such derating is to avoid nuisance tripping due to load surges or power transients and to meet code requirements. Applicable codes and customer requirements will vary.

Warning! Failure to provide an appropriate disconnect device and branch circuit protection may endanger service personnel. Serious injury and equipment damage may result if this warning is not observed.

A suitable **support** must be provided as part of **Building Installation**. The **support** must sustain the display weight without overturning when the front is open.

This is an excerpt from UL 60950-1 which helps the architect with the design criteria of the support bracket for the display.

“4.2.10 Wall or ceiling mounted equipment

The mounting means of equipment intended for wall or ceiling mounting shall be adequate. Compliance is checked by inspection of the construction and of available data, or where necessary, by the following test. The equipment is mounted in accordance with the manufacturer’s instructions. A force in addition to the weight of the equipment is applied downwards through the geometric centre of the equipment, for 1 min. The additional force shall be equal to three times the weight of the equipment but not less than 50 N. The equipment and its associated mounting means shall remain secure during the test.”

5. Power supply connections:

The display is shipped from the factory pre-wired for 115V operation.

Should the need arise where the cable needs to be changed, use Power Cable with STYLE UL-1015, AWG14 or equivalent.

The power supply cable has to be suitable for outdoor, use STOW type, and for a working temperature up to 75°C.

The display is shipped with a power cable with a Leviton Wetguard or Daniel Woodhead 14W47 NEMA 5-15P plug on the end. The unit normally is powered by a 115VAC outlet. The display is also capable of being powered by 220VAC and is auto ranging. If you decide to run on 220VAC, make sure you use the appropriate plug rated for 220VAC such as Leviton 14W49. Please follow all local codes for electrical wiring into a water proof junction box. A GFCI breaker is recommended. Alternately, a GFCI outlet is recommended for this display if using a plug and receptacle combination.

The polarity of the cable is as indicated below:
YELLOW-GREEN: GROUND/EARTH
BROWN: LIVE
BLUE: NEUTRAL

6. Terminal Blocks colors identification:

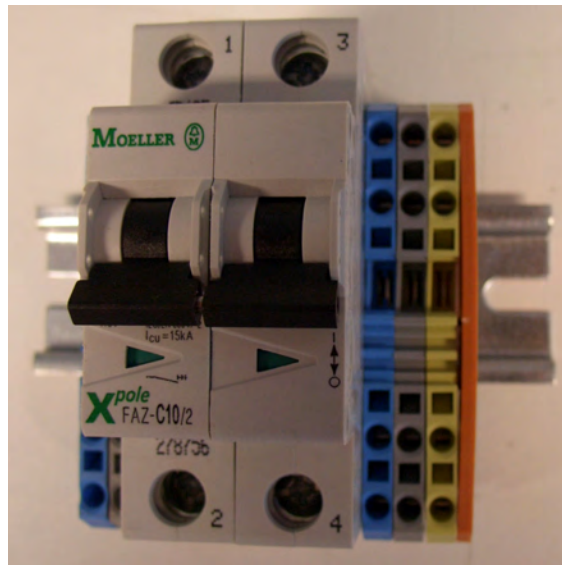
YELLOW-GREEN: GROUND/EARTH
GREY: LIVE
BLUE: NEUTRAL

For safety precautions; first connect the GROUND cable, followed by cables NEUTRAL and LIVE

Insert the WAGO 210-620 tool in the proper opening.

The blade of the WAGO tool automatically opens the crimp and allows the conductor to be inserted.

Remove the WAGO tool. The conductor is securely retained.



7. Grounding

The **Site Building** shall provide the safety ground/protective earth ground to all units.

The chassis ground point is provided on the YELLOW terminal block OR also the green wire with the yellow stripe if the units is supplied with a power cord.

Install the PE (protective earthing) conductor that is identical in size, insulation material, and thickness to the branch-circuit supply conductors. The PE conductor must be green with yellow stripes.

The earthing conductor is to be connected from the unit to the building installation earth.

8. Installation

Fit the unit on the suitable support.

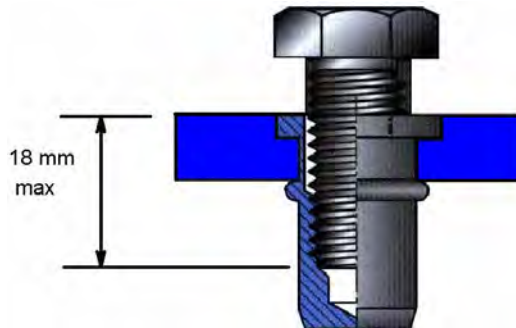
The **support** must be provided as part of **Building Installation**.

The **support** must sustain the display weight without overturning when the front is open. **Exercise caution when lifting**. The display weighs 95Kg (210 lbs). It takes a minimum of 2 people to lift and carry safely. It is recommended to have a mechanical lift to aid in installation.

Before fitting the screws, it is advisable to apply LOCTITE 8153 anti-seize compound or equivalent to the screw threads.

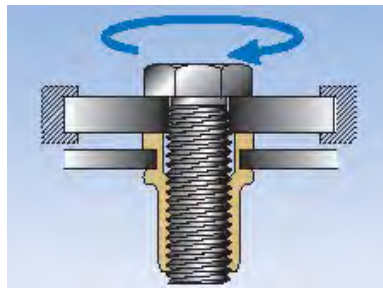
All the M10 mounting screws must be used with a lock washer to prevent the screws from coming loose.

Use the M10x18mm Stainless steel screws as minimum requirement. The length of the screws may change depending on the bracket design.

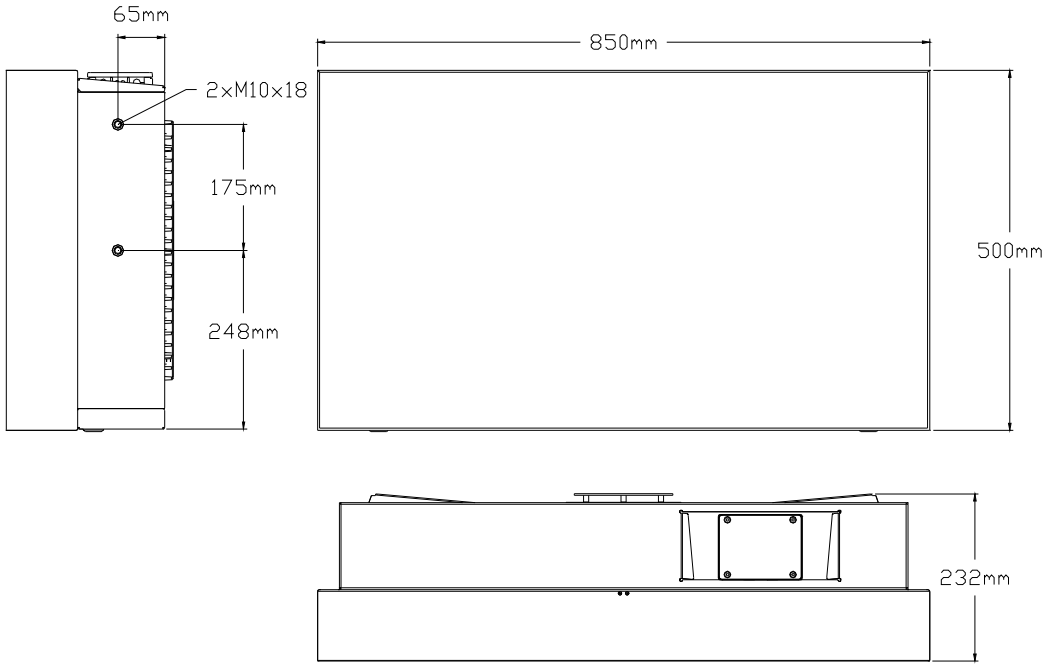


Length of the brackets screws

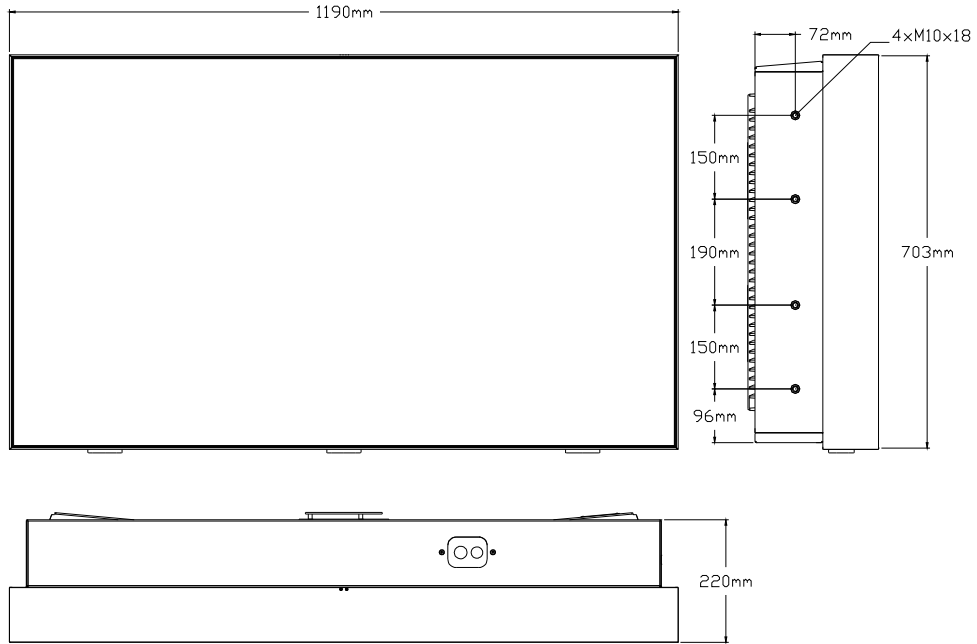
The maximum tightening torque value must not exceed 27 Nm. (19.9 lb/ft)



Mechanical dimensions

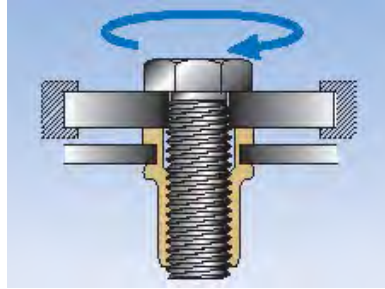


32" overall dimensions and fixing point



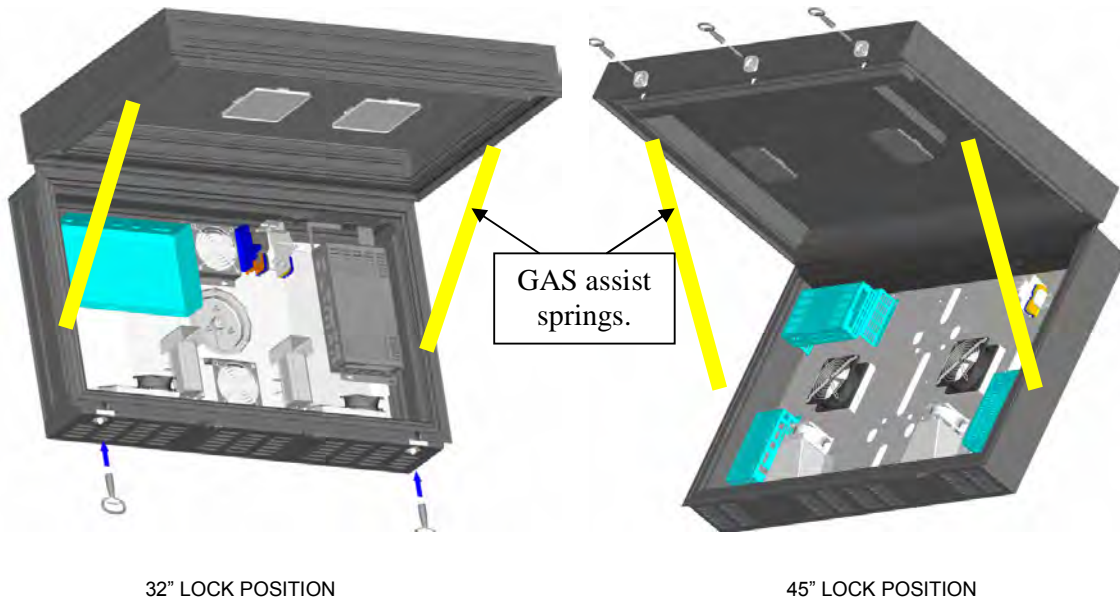
45" overall dimensions and fixing point

The maximum torque value of the screws on the cable entry box cover must not exceed 2 Nm (1.47lb/ft).



Cable entry box maximum torque value of the screws

Release the cover locks securing the display front to the frame. For this operation it is necessary to use the special KEY tool provided with the unit.



ATTENTION:

While closing the display, ensure there are no cables trapped between the back and the front. There is a safety lock on the GAS spring that must be depressed and held depressed until you are past the locking point before the lid can be closed.



INSTALLATION GUIDELINES

Environmental conditions

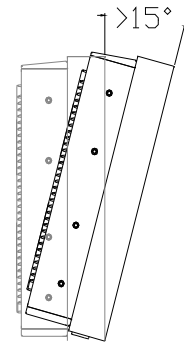
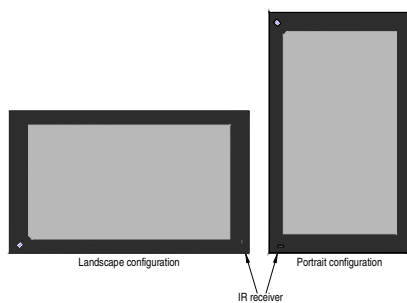
Operating temperature : - 20°C to 45°C (-4° to 113°F) with direct sun light
Operating temperature : - 20°C to 50°C (-4° to 122°F) without direct sun light
Humidity : max 90%

Display configurations

The display can be used in two different configurations, landscape and portrait.
When using in landscape, the infrared receiver must be in the lower right corner.
When using in portrait, the infrared receiver must be in the lower left corner.

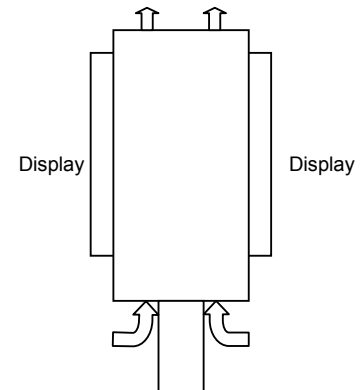
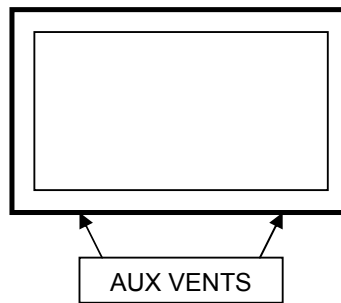
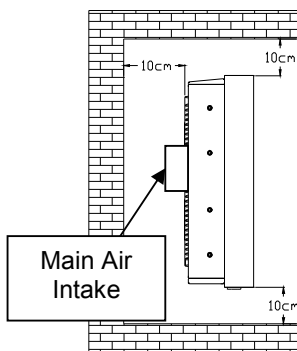
Tilting

The display must be tilted 15° minimum to avoid overheating related to solar solstice



Wall mount or Ceiling mount

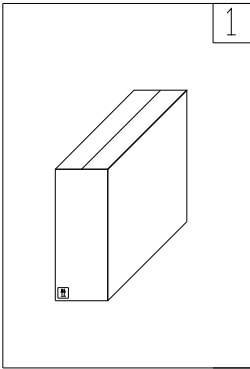
The display is equipped with cooling fans located on the backside and bottom of unit which requires 10cm of spacing to provide adequate cooling. These areas must be free of any structure that may restrict the air flow.



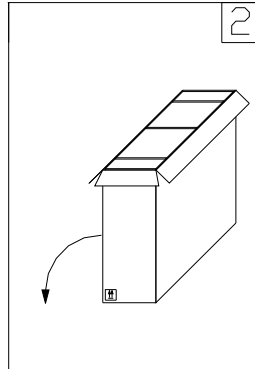
The auxiliary ventilation **only** operates under extreme heating. This will intake freshly filtered air directly into the cabinet. This area needs to be free from blockage of a superstructure. If installing inside an existing structure or casing, please provide adequate free air path. The best method is an inlet at the bottom and an exit on the top to form a chimney effect. The top exits may be on the sides

Unpack

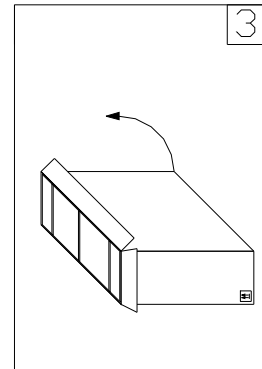
Open the packing from the top. Fold the packing flaps outward and lay the box on its side. Now turn the box upside-down as shown by the arrow.



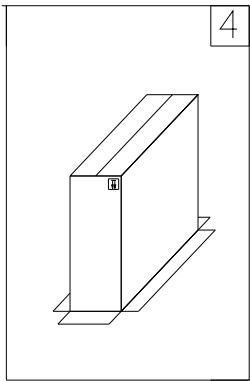
Open the packing from the top.



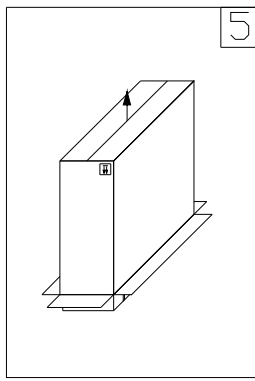
Fold the packing flaps outward and lay the box on its side.



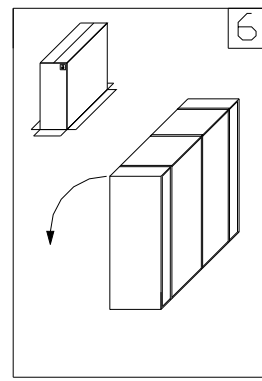
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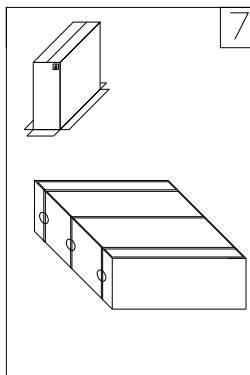
The box should now be in the position shown.



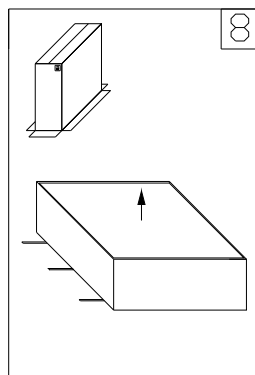
Lift the outer box by pulling upwards.



Lay down the box letting it slide slowly on a corner.



Cut the 3 fixing straps in the points marked by the circles.



Pull up the carton and the sponges to free the display.

Storage temperature: from -20°C to $+60^{\circ}\text{C}$ max wet bulb 39°C . $+10/+90\%$ RH

9. Cleaning

After the installation, if it is necessary to clean the display, please follow the instructions below:

The best method of cleaning is by washing using a solution of warm water and mild detergent ph 5-8. All surfaces should be cleaned using a soft cloth or sponge, using nothing harsher than natural bristle brushes.

The temperature of the parts to be cleaned should not exceed 30°C and not be exposed to direct sunlight.

The temperature of cleaning agents should not exceed 30°C and steam jets must not be used.

Cleaning agents should not remain on the surface for more than one hour.

After a minimum of 24 hours, the cleaning may be repeated if necessary.

Rinse with clean, cold water immediately after each cleaning procedure. Dry off with a clean lint free towel to prevent water streaks, etc.