AIVIA Protection

Installation and exploitation instructions

Important

Before installing and operating the AIVIA, please read this manual carefully and follow all the instructions contained herein.

The AIVIA Protection does not control the defibrillator, the distributor is solely responsible for checking and informing its own customers and operators that it is their responsibility to verify the defibrillator's operating condition and presence by carrying out regular physical checks on site. Under no circumstances can the operating condition and presence of the defibrillator installed in AIVIA be checked remotely. The AIVIA can in no way replace the checks and verifications recommended by the defibrillator manufacturer and the competent local authorities.

The AIVIA without heater must be installed in a temperate environment, as per the defibrillator manufacturer's instructions. The AIVIA with heater must be installed in an environment that respects the AIVIA's operating temperatures. Temperature warnings must be followed. If the AIVIA door is open or missing, temperature maintenance is no longer guaranteed.

NEVER INSTALL THE AIVIA IN DIRECT SUNLIGHT. YOU RISK EXPOSING THE DEFIBRILLATOR TO EXCESSIVE TEMPERATURES.

AIVIA specifications are subject to change without notice. PYRESCOM reserves the right to modify products at any time, without obligation to modify previously delivered products.

Safety

Do not install and use the AIVIA in an oxygen-rich environment.
To avoid the risk of fire or electric shock, do not place open flames near the AIVIA. Keep the AIVIA away from radiators and other sources of heat. Do not place the AIVIA on top of other equipment that could become hot. Do not place anything under the AIVIA. Leave a space of at least 12 cm (4 3/4 in.) all around the AIVIA to ensure good ventilation. To prevent damage, do not insert objects into the orifices. Do not expose the AIVIA to water when the door is open.

The wall on which the AIVIA is mounted must be a flat, non-flammable surface.
The fasteners used must be suitable for the type of support and must be able to withstand a minimum load of 20 kg (44 lbs). PYRESCOM cannot be held responsible for inadequate mounting.

Only CLASS II AC/DC power supplies are allowed. The use of any other power source such as batteries, solar panels, generators, etc. is strictly forbidden. The use of a power supply that does not comply with PYRESCOM's recommendations may generate a risk of electrocution of users.

To avoid the risk of strangulation or strangulation, keep the AED cables and retaining strap out of the reach of small children. This device is not a toy. Do not leave children unattended nearby.

The AIVIA is designed to be used by a person taller than 1.45 meters (4'9”).

Do not disassemble AIVIA components , do not use accessories, spare parts or materials not described in this manual. Do not connect this device to other devices than those described in this manual.

The installation must be carried out by a qualified or authorized operator in accordance with the regulations in force in the country of installation.

ONLY AN OPERATOR AUTHORIZED BY PYRESCOM IS ALLOWED TO CARRY OUT REPAIR OR MAINTENANCE OPERATIONS. ANY MODIFICATION OF THE AIVIA IS STRICTLY PROHIBITED.

PYRESCOM must be notified of any incident involving the device.

Intended use:

The AIVIA Protection is a public access defibrillator cabinet, designed to house and secure an automated external defibrillator (AED) in public spaces, establishments open to the public, as well as in residential or commercial premises, in order to allow rapid access to the device in the event of a cardiac emergency.

Warranty

Failure to comply with the instructions in this document will invalidate any warranty, express or implied. Any operation expressly prohibited, or any assembly procedure not recommended in this manual, will invalidate the warranty.

Information relating to the environment

If you return the AIVIA, please use the complete original packaging.

Do not throw the AIVIA and its packaging away with household waste. Use the recycling facilities available in your area. The AIVIA must be recycled in accordance with local regulations. The AIVIA does not contain hazardous materials and can therefore be recycled like any other electronic device. Under European legislation, the device is considered industrial electronic waste.

The use of recycling facilities helps protect the environment and human health.

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Symbols

EN

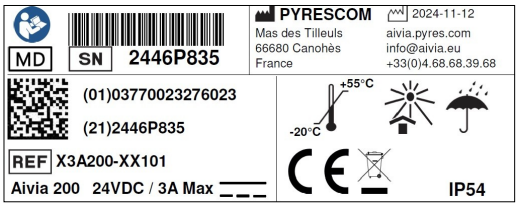
The symbols and pictograms used on the AIVIA and in this manual are explained below. The terms "Danger," "Warning," and "Caution" are used in this manual to highlight potential hazards and indicate levels of risk. Please familiarize yourself with their meaning and significance.

	Manufacturer.
SN	Serial number.
REF	Reference.
MD	Medical device.
	Refer to the instruction manual/brochure.
	Date of manufacture.
	Minimum and maximum operating temperature.
	Storage and transport temperature.
	Do not expose to water.
	Do not expose to heat or sunlight.
IP 54	Level of protection provided by protective enclosures, IP rating according to IEC60529 . Protection against dust and other microscopic residues. Protection against splashes of water in all directions (normal rain and humidity).
CE	Product compliance with applicable European Union directives.
	Direct current.
	Danger, general safety signal.
	Fragile, handle with care.
	Do not discard in the trash. Use your local collection system.
	The packaging is recyclable.
	Universal Ilcor. Automatic external defibrillator (AED).
	Pictograms explaining how to use the AIVIA Protection Model 200. Call emergency services. Pull the door to access the defibrillator.
	Pictograms explaining how to use the AIVIA Protection model 210 (Secure Opening Option). Alert emergency services. Enter the opening code on the keypad. Pull the door to access the defibrillator.
	Chain of Survival: "***Alert, Massage, Defibrillate***".

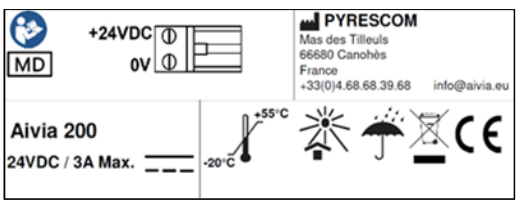
Full view of the AIVIA

Labels

The ID label is glued on the inside of the AIVIA under the keypad. It serves to identify the respective AIVIA.



The hatch label is located on the inside of the maintenance hatch.



The meanings of the symbols on the ID label can be found in the **"Symbols"** section.
For all communication with PYRESCOM Customer Service or your service technician, please have the AIVIA part number and serial number ready.

Important

Never install the AIVIA in direct sunlight. You risl exposing the defibrillator to excessive temperatures.

Mounting the AIVIA

The installation must be carry out by a qualified or authorized technician in accordance with the regulations in force in the country of installation.
Check the conditions of the AIVIA before installing it.

If the AIVIA is installed on a public street or in a high-traffic area, it is recommended to raise the floor or use a column so that it can be easily seen by blind or partially-sighted people, in accordance with local regulations in the country of installation.
To facilitate access to the defibrillator for People with Reduced Mobility (PRM), the door handle must be positioned at a height of 1.25 meters (4,1") above the ground.
Leave a clear area of 12 cm (4 3/4 in) around the AIVIA and 1.40 meters (4.6") towards the front to allow the door opening.

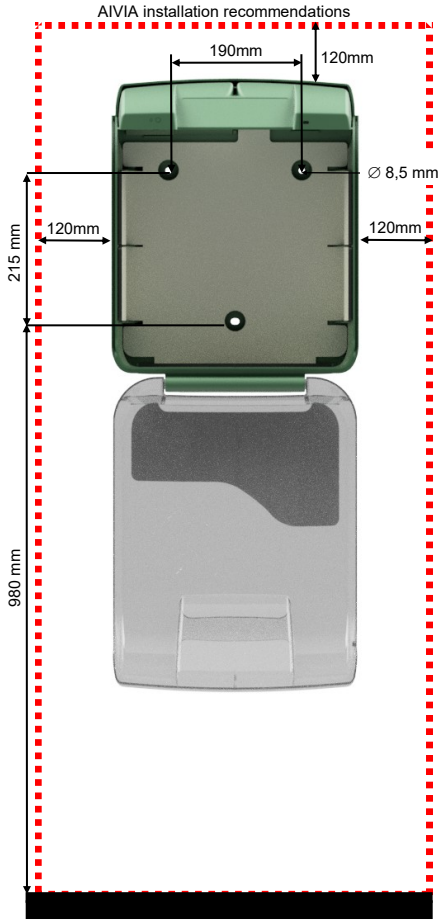
The wall on which the AIVIA is mounted must be a flat, non-flammable surface.

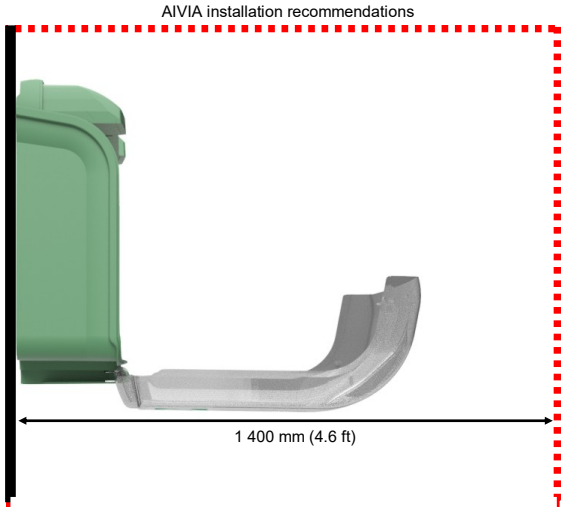
The fasteners used must be adapted to the surface and must support a minimum load of 20 kg (44 lbs).
The fixing screws must have a diameter of 6mm (1/4 in) and a minimum length of 30mm (1 3/6 in). If the screw head diameter is less than 12 mm (1/2 in), insert an M12 washer between the screw head and AIVIA frame.

Secure the AIVIA using the 3 mounting holes.

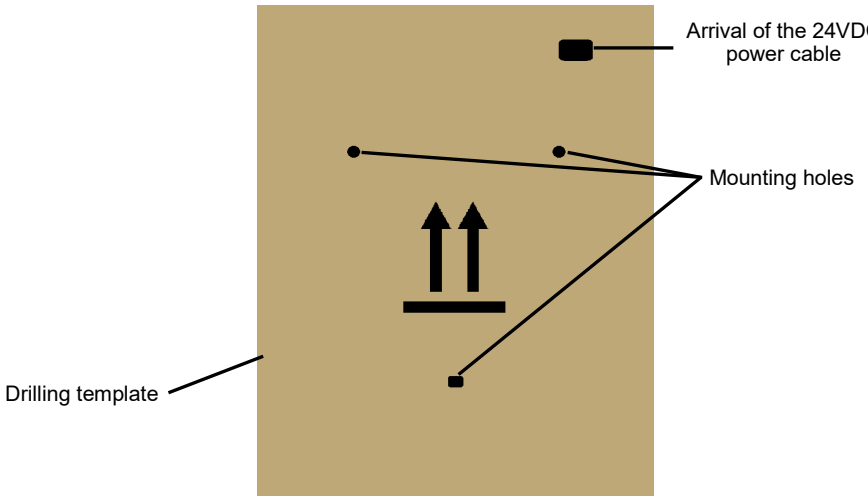
Make sure you have routed all the necessary cables through the cable duct before mounting the AIVIA on its bracket (or other surface).

The exact dimensions of the AIVIA are provided at the end of this document, in the **"Specifications"** section.





Use the drilling template (included in the packaging) to mark the mounting holes and the position of the power cable .
Place the drilling template against the surface with the arrows facing upwards.



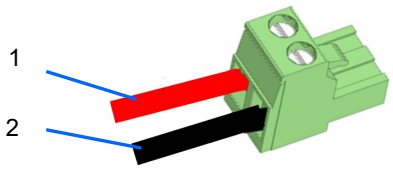
If you disassemble the AIVIA, check that the seal is in good condition. If the seal is damaged, it must be replaced. Contact your maintenance technician.

Connecting the power supply

The AIVIA must be installed with a 24VDC power cable. For more information, please see the "Electrical installation" section.

To avoid the risk of strangulation or choking, keep cables out of reach of young children.

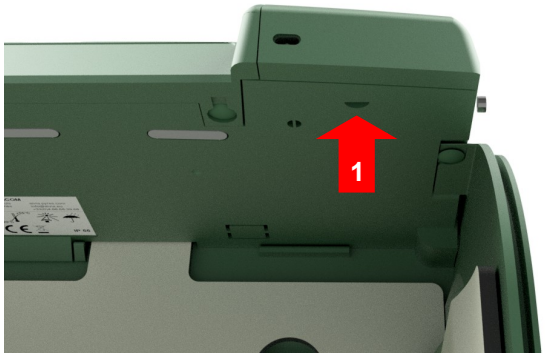
Connect the electrical power supply cables, respecting the polarity on the power supply terminal block.
Tighten the terminal block screws with a tightening torque of 05/06 Nm.

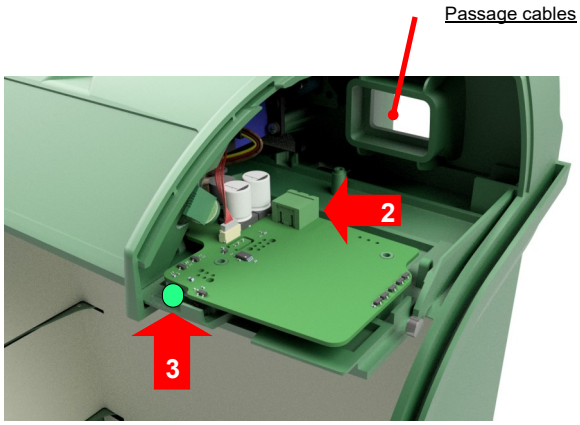


1: +24VDC red cable
2: 0V black cable

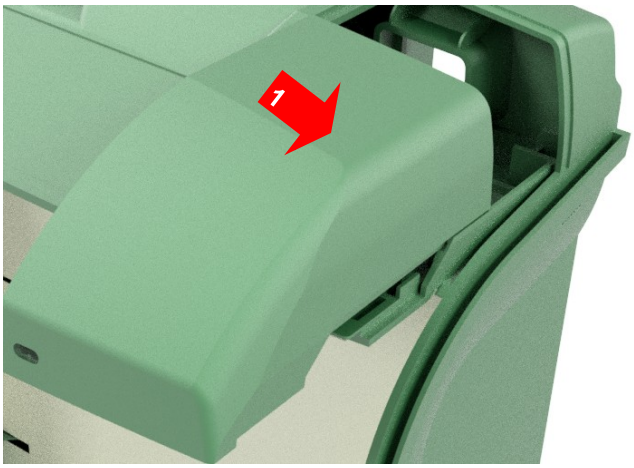
Open the maintenance hatch by gently pressing the locking clip (1) with a thin tool and pulling the hacth forward. Do not touch any electronic components on the board.

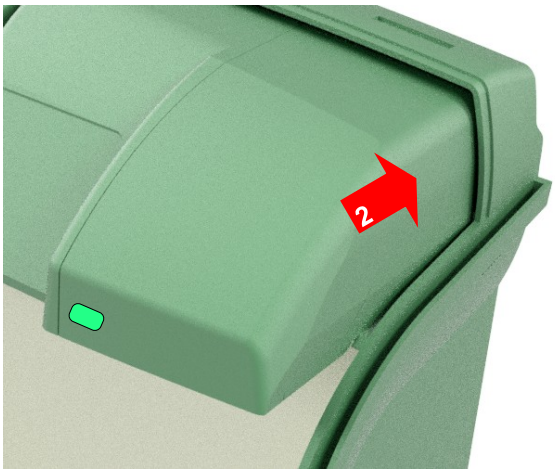
Connect the terminal block to the power connector (2).
Check that the green light (3) lights up.





Close the maintenance hatch by placing it on its case (1), then push the hatch towards the back of the AIVIA until it locks in place (2).





Installation of the defibrillator

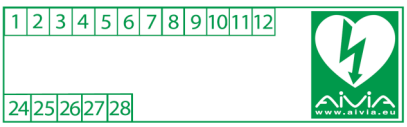
Pull the retaining strap towards you and slide the defibrillator into the bottom of the AIVIA.

The retaining strap allows for easy removal in the event of an emergency, while keeping the defibrillator against the heating film.

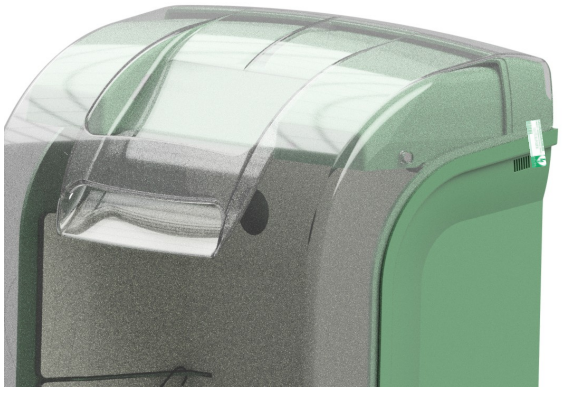
After installing the defibrillator, visually inspect the AIVIA for any damage.
Check that the door is functioning properly. Check the condition of the seals.

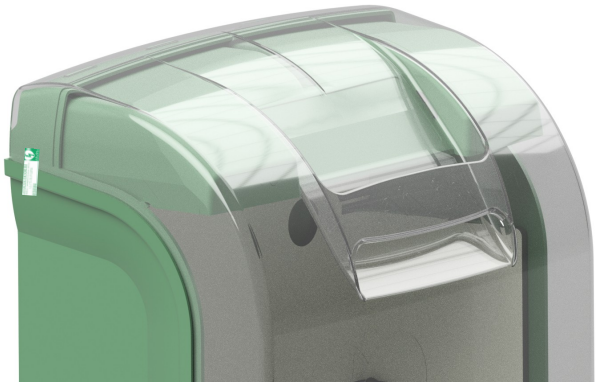
Installation of the seals

The AIVIA comes with a set of seals to indicate the date of the next maintenance check, and to indicate that the door has been opened. The seals should be checked regularly.



Close the AIVIA door completely.
Write the date of the next maintenance check on the seals, then stick them on both sides of the AIVIA between the door and the case.





Night light function

In low-light conditions, white LEDs light up on the AIVIA to illuminate the defibrillator and indicate its position.

Audible alert function

When the door is opened, an audible alert is activated every 30 seconds for 3 minutes and the red warning LED lights up.

Temperature maintenance function

The heater maintains the defibrillator's operating temperature within certain limits. It switches on if the temperature inside the AIVIA reaches 10°C (50°F). In extremely cold weather, make sure that the temperature warning is not indicated by the red warning light.

The fan evacuates hot air from the AIVIA. It switches on if the temperature inside the AIVIA reaches 30°C (86°F). In hot weather, make sure that the temperature warning is not indicated by the red warning light.

CAUTION

In the event of a power outage, the heating system will no longer operate; only the passive protection of the casing protects your defibrillator.

The ventilation evacuates = hot air contained in the AIVIA. It is not a cooling system.

If the defibrillator is not maintained within the temperature limits specified by the manufacturer, you must remove the defibrillator from the AIVIA and contact your maintenance technician.

Opening the door in "Maintenance" mode

The "Maintenance" mode allows you to open the AIVIA door without triggering the audible alert and the red warning LED.

To open the door in "Maintenance" mode, place your maintenance key in front of the magnetic detection area. An audible signal indicates that you can open the door.

If the AIVIA is equipped with the **"Secure Opening Option"** you cannot open the door in **"Maintenance"** mode with the maintenance key. Please see the **"Secure Opening Option"** section for more.

Stopping the AIVIA

To stop the AIVIA, the door must be open in "Maintenance" mode, you can open the maintenance hatch and disconnect the power terminal block or cut off the power at the differential circuit breaker. Refer to the "**Electrical Installation**" section.

Your maintenance technician may adjust certain settings depending on the installation environment and the defibrillator model.

Red warning light operation

The red light warns the user that the device must be checked following an incident that may affect the defibrillator. It is accompanied by a flashing green light indicating the reason for the warning.

The red light lights up when:
- The door of the AIVIA is opened.
- The temperature inside the AIVIA exceeds 45°C (113°F).
- The temperature inside the AIVIA falls below 5°C (41°F).
- The power goes out while the AIVIA is heating.

Warning, in the event of a power outage, the AIVIA cannot monitor whether its door has been opened. In other words, the red warning light will not switch on if the door is opened during the power outage. You must therefore check the seals on the case to determine whether the door has been opened.

These warnings require you to ensure the defibrillator's integrity and proper operation.

To switch off the red warning light, open the door in "Maintenance" mode and hold the maintenance key in front of the magnetic detection area for three seconds. Three beeps will sound and the red warning light will turn off.

Red warning light	Green light
	One flash of the green light indicates that the door has been opened: 
	Two flashes of the green light indicates that the temperature are exceeded: 
	Three flashes of the green light indicates that the power supply has been cut off during heating: 
	If multiple incidents trigger the red warning light, the green light flashes in sequences, with a 2-second pause. For example, for an open door and a temperature anomaly: 

CAUTION

Every seven days, the AIVIA automatically checks its functions and components. If the red warning light is on and the green light is off, then the AIVIA is malfunctioning. In this case, you must remove the defibrillator from the AIVIA and contact your maintenance technician to have the AIVIA inspected.

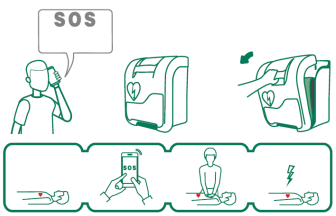
Red warning light	Green light
	Green light off, there is an malfunction in the AIVIA : 

Pictograms

The pictograms on the door of the AIVIA show you how to proceed in an emergency:

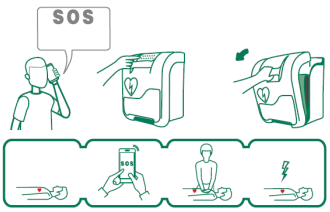
AIVIA Protection Model 200:

Alert emergency services.
Pull the door to access the defibrillator.



AIVIA Protection Model 210 (Secure Opening Option)

Alert emergency services.
Enter the opening code on the keypad.
Pull the door to access the defibrillator.



"Alert, Massage, Defibrillate"

You can enter the number to call in an emergency below the "SOS".

Operation (Secure Opening Option model 210)

Using the AIVIA with the “Secure Opening Option”

The AIVIA equipped with a “Secure Opening Option” limits access to the defibrillator to users who know the opening code. A touch-sensitive keypad allowing the code to be entered through the door.

There are two opening codes: the “User” code and the “Maintenance” code.
The “User” code (0000 by default) unlocks the door without triggering the alarm, but switch on the red warning light.
The “Maintenance” code (1111 by default) unlocks the door and configures the AIVIA for maintenance.

To unlock the door, enter your code on the keypad and press the validation button.

In the event of a power outage, the door of the AIVIA unlocks to allow access to the defibrillator.
The door will lock once the power is restored.

Warning, in the event of a power outage, the AIVIA cannot monitor whether its door has been opened. It means that the red warning light will not switch on if the door is opened during the power outage. You must therefore check the seals on the case to determine whether the door has been opened.

Modify opening codes (Secure Opening Option) and shutting down the AIVIA

You can change the “User” and ‘Maintenance’ codes using the keypad when the door is open in “Maintenance” mode.

To change the “User” code, press 001 on the keypad and confirm. Enter your new “User” code (4 to 8 characters), then confirm.

To change the “Maintenance” code, press 002 on the keypad and confirm. Enter your new “Maintenance” code (4 to 8 characters), then confirm

To shut down the AIVIA, enter 999 on the keypad and confirm. Wait for AIVIA to switch off, then disconnect the power supply.

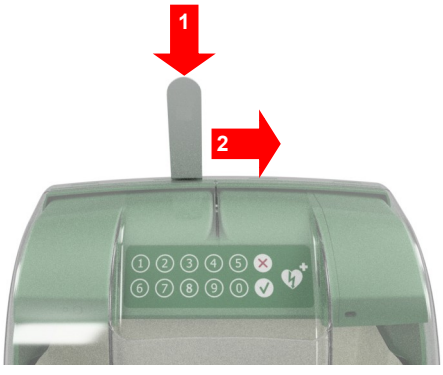
Switching off the red warning light (Secure Opening Option)

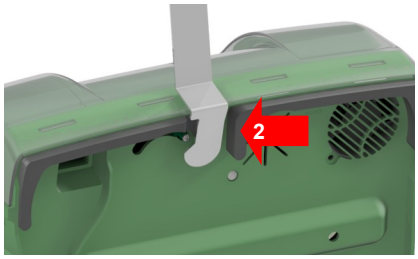
To switch off the warning light, open the door in “Maintenance” mode, then press 100 on the keypad and confirm. Three beeps will sound and the warning light will turn off.

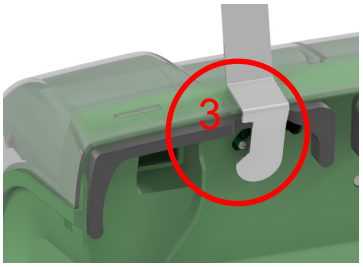
Please see the “Red warning light” section for more.

Manual emergency opening (Secure Opening Option)

A manual emergency opening is located on the back of the AIVIA. To unlock the door manually, slide the unlocking bracket between the wall and the AIVIA until it comes to a stop (1). Shift the tool to the right (2) to move the door latch (3).
If the seals are damaged, they must be replaced. Contact your maintenance technician.







Periodic checks

At least once a week, check the AIVIA to detect any damage. Check the condition of the seals.
Check that the green light is on continuously without flashing and that the red warning light is off.
Check your defibrillator according to the manufacturer's recommendations.

Check that there is no excessive dirt and that the inscriptions on the door are legible.

If any breakage or malfunctions that could affect the safety of users or the defibrillator is detected, contact your maintenance technician immediately.

Maintenance

Maintenance should be done regularly, at least quarterly.

Clean the surfaces with a soft, damp cloth. Wipe the AIVIA with a clean, dry soft cloth.
Do not use chemicals or cleaning products, as this may damage the AIVIA.

Do not rub the AIVIA with a hard object, as this may scratch or permanently damage the surfaces.

Do not use a water jet or high-pressure cleaner.

Troubleshooting

When powered on, no indicators light up.

1. Check wiring polarity.
2. Check the power supply.
3. Check the voltage (24VDC) on the terminal block.
4. Make sure the terminal block is inserted correctly.
5. Contact your maintenance technician.

The red warning light does not turn off when the maintenance key is used.

1. Make sure the door is open in “Maintenance” mode.
2. Place the maintenance key in front of the magnetic detection area for three seconds until three beeps sound.

The red warning light does not go out when the maintenance key passes in the magnetic detection area, and the green light is off.

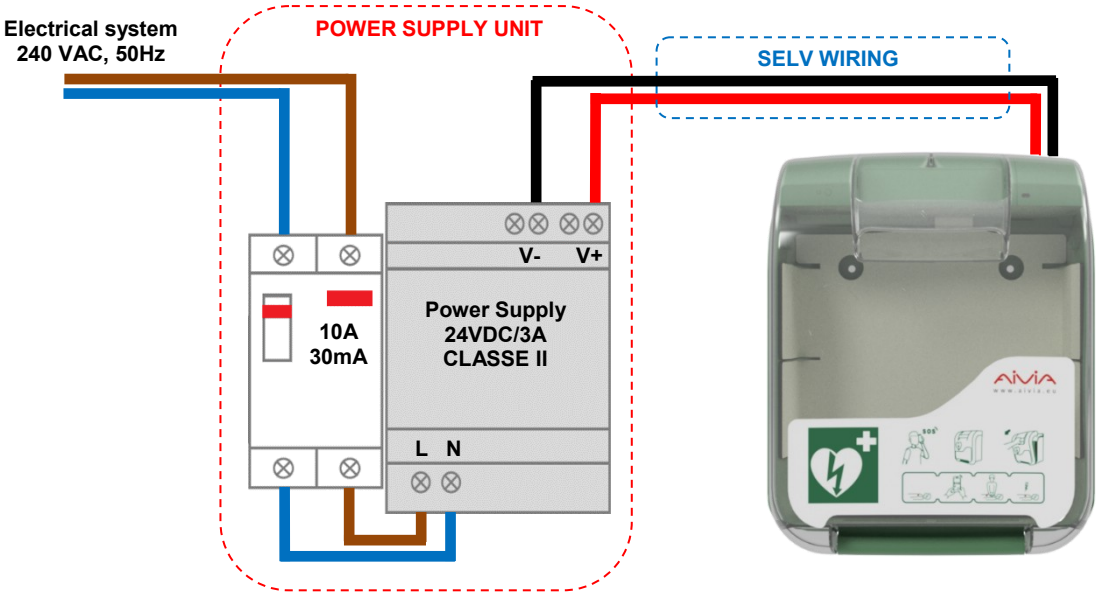
1. A malfunction has been detected. Remove the defibrillator from the AIVIA and contact your maintenance technician for diagnosis.

The white lights do not switch on in low-light conditions.

1. Make sure the AIVIA is powered on.
2. Make sure a light source is not affecting the brightness sensor.
3. Contact your maintenance technician.

The alarm does not sound when you open the door

1. Make sure the AIVIA is powered on.
2. Contact your maintenance technician.



Power supply unit

The power supply unit must be outside the AIVIA. Never place it inside the AIVIA.

The power supply unit must include:
• A 10A/30mA differential circuit breaker to protect and isolate the equipment.

• A SELV power supply* or equivalent 24VDC +-2%/3A, 100 VA maximum CLASS II with a power-limited source, with double or reinforced insulation, meeting the requirements of IEC 62368-1.
The use of a power supply that does not comply with PYRESCOM's recommendations may cause a risk of electric shock to users. Only CLASS II AC/DC power supply is allowed. The use of any other power source such as batteries, solar panels, generators, etc. is strictly prohibited.

• The cables connecting the residual current device and the power supply must have a minimum cross-section of 1.5 mm².

Its primary connection must include "phase" and "neutral."

The maximum secondary voltage drop at full load must not exceed 2%, i.e., 23.5V, on the AIVIA terminal block.

The contents of the power supply unit must be protected from dust and water, and be ventilated.**

The wiring of the power supply unit must comply with the standards in force in the country of installation.

*Recommended power supply: PYRESCOM C_AL/HDR100-24CA.
**Natural or forced convection, depending on environment and thermal characteristics at maximum operating capacity.

SELV Wiring:

The Safety Extra Low Voltage Wiring (SELV) cable must consist of two sheathed insulated conductors (red and black), with a cross-section of 2 mm² (AWG 14) and a maximum length of 10 m (32.8 ft).
It must comply with the requirements of IEC 60332-1.

Use the red cable for +24VDC and the black cable for 0V.

Electromagnetic Compatibility (EMC)

Intended Use Environment

The AIVIA is designed for indoor or outdoor wall-mounted use in public or residential environments. These environments includes passageways, lobbies, schools, shopping centers, accessible outdoor areas, streets, sidewalks, private areas, residences, businesses, hotels, and train stations.

The AIVIA must not be installed in critical electromagnetic environments, such as operating rooms or intensive care units, specialized medical zones near MRI equipment or high-frequency electrosurgical systems, and industrial areas with high RF emissions (e.g. radars, high-frequency equipment).

Warnings and Precautions

Do not use RF communication devices (phones, walkie-talkies, antennas) within 30 cm of the device, including its cables. RF interference may cause temporary disturbances to the keypad backlight, with no impact on essential performance.

Avoid installing the unit near industrial or medical high-frequency equipment. In case of malfunction, remove RF sources away and verify the wiring.

Use only cables and accessories supplied or approved by PYRESCOM. The use of non-compliant cables or power supplies may compromise electromagnetic performance.

No EMC maintenance is required, except in the event of environmental change, or if the power supply is replaced or relocated to an area with strong electromagnetic fields.

Compliance is ensured as long as the specified usage conditions are met.

EMC Compliance summary table

Category	Standard	Result	Comment
Conducted emissions	CISPR 11 Class B	Compliant	Measurements on AIVIA 200 and 210, standby and active modes
Radiated emissions	CISPR 11 Class B	Compliant	Level well below thresholds
Electrostatic discharge (ESD)	IEC 61000-4-2	Compliant	Up to 15kV (air), no anomaly
Radiated RF fields	IEC 61000-4-3	Compliant	Multi-frequency testing up to 28 V/m
Fast transients	IEC 61000-4-4	Compliant	±2 kV on 24VDC input
Overvoltage	IEC 61000-4-5	Compliant	±1 kV differential mode
RF conducted disturbances	IEC 61000-4-6	Compliant	Up to 6V on amateur radio bands
Industrial magnetic fields	IEC 61000-4-8	Compliant	30 A/m at 50 Hz and 60 Hz
RF near fields	IEC 61000-4-39	Compliant	Tested at 30 kHz, 134.2 kHz, 13.56 MHz
Voltage dips	IEC 61000-4-11	Not applicable	DC power supply, no connection to the 230 VAC mains
Harmonic	IEC 61000-3-2	Not applicable	DC power supply, no connection to the 230 VAC mains
Flicker	IEC 61000-3-3	Not applicable	DC power supply, no connection to the 230 VAC mains

Specifications

Mechanical features

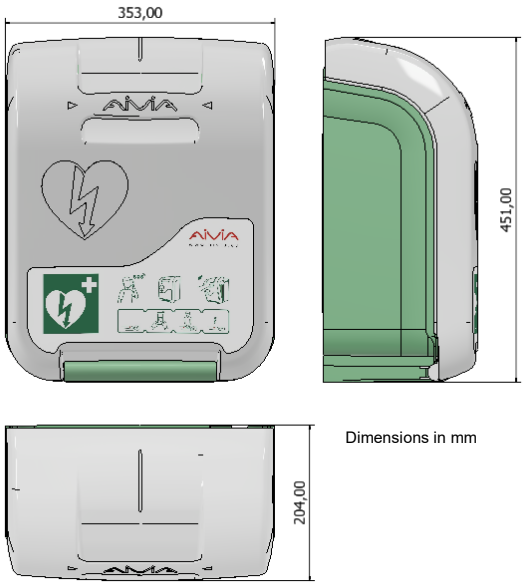
Weight: 3.2 kg (7 lbs)

Dimensions: 451 x 353 x 204 mm (17 3/4 x13 7/8 x 8 in.) (H x W x D)

Materials:
Door: Polycarbonate UL94-V0
Frame and electronic support: ABS-PC UL94-V0

Maximum supported weight: 5 kg (11 lbs)

Protection rating: IP54 fixed to the wall support.
Impact resistance: IK10.



Dimensions in mm

Technical featurs

Power supply:
24VDC +- 2%/3A, 100VA maximum with a power-limited source, complying with IEC 62368-1 requirements.

Power consumption:
Minimum 0,1A, maximum: 3A active heater

Maximum heating power at +20°C(68°F): 75W +-12W.
Maximum temperature of heating film: +50°C (122°F) +- 5°C (41°F)

Sound power level: 90 dB/1 meter

Operating temperature and humidity: Min.: -20°C (-4°F) static. Max.: +55°C (+131°F)
Relative humidity: 90% maximum non-condensing

Storage and transport temperatures: Min.: -20°C (-4°F). Max.: +60°C (140°F)
Operational immediately after storage at minimum or maximum temperature.

Atmospheric pressure 700 to 1060 hPa.

Low temperature warning: +5°C +- 2°C (41°F +-3.6°F) during 20 minutes or 5 minutes after AIVIA activation.
High temperature warning: +45°C +- 2°C (113°F +-3.6°F) during 20 minutes or 5 minutes after AIVIA activation.

Heater activated: +10°C +- 2°C (50°F +-3.6°F)
Fan activated: +30°C +- 2°C (86°F +-3.6°F)

The AIVIA has a defined service life of 5 years if all instructions in this document are followed.

Conformity

CE

The AIVIA complies with the EU MDR 2017/745 regulation on medical devices, and meets the essential requirements of Annex I of this same regulation. The AIVIA is a Class I device.

IEC 60601-1:2005, AMD1:2012, AMD2:2020
IEC 62304:2006, AMD1:2015
IEC 60601-1-6:2010, AMD1:2013, AMD2:2020
IEC 62366-1:2015, AMD1:2020
IEC 60601-1-11:2015, AMD1:2020
IEC 60601-1-2:2014, AMD1:2020
IEC 62311:2019
EN 300 330 V2.1.1

IEC 60529:1989, AMD1:1999, AMD2:2013: IPX4
IEC 60529:2013: IP5X
EN 62262:2004 EN 60068-2-75:2015: IK10

PYRESCOM Mas des Tilleuls 66680 Canohès France
+33(0)4.68.68.39.68 / aivia.pyres.com / info@aivia.eu