

Fridge Grow 2.0

**User manual FG module** 



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### **Product**

Plantalytix Fridge Grow is a fully automated plant cultivator designed exclusively for growing plants indoors. The entire system consists of the following parts:

- Plantalytix Fridge Grow Module with
  - Integrated Display
  - o Adjustable Mounting Bracket
  - o CO2 Sensor
  - o CO2 Valve
  - o Power Connection Cable
  - o Temperature and Humidity Sensor
- CO2 Pressure Reducer
- CO2 Bottle Holder
- CO2 Hose
- Wrench for CO2 Bottle
- Circulation Fan with Clip
- 3 Rear Wall Panels (one panel with integrated fan)
- Condensate Tray with Water Hoses and Fitting
- Body (shipped separately)
- Terminal Box
- Accessories:
  - Substrate Living Soil Dope Lite from Florganics
  - o Plant Pots with Cover
  - Saucers for Plant Pots
  - Drying Net
  - o Expanded Clay Pellets
  - Sealant
  - o Trace Elements

The CO2 bottle is not included. A standard CO2 bottle for soda makers such as Sodastream is recommended. This can then be refilled at any time in appropriate supermarkets.

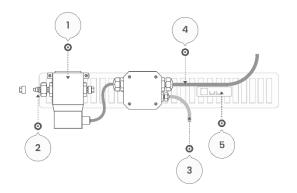
The CO2 bottle is not included. Here, a conventional CO2 bottle is recommended for soda makers such as Sodastream. This can then be refilled at any time in appropriate supermarkets.



# **Individual components**

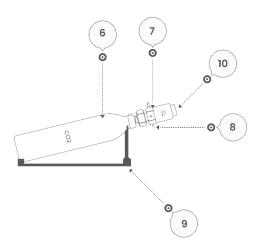
### FG module

- 1... CO2 Valve
- 2... CO2 connection inlet
- 3... Sensor Cable for temperature and humidity
- 4... Power supply
- 5... Fan Connectors



## CO2-System

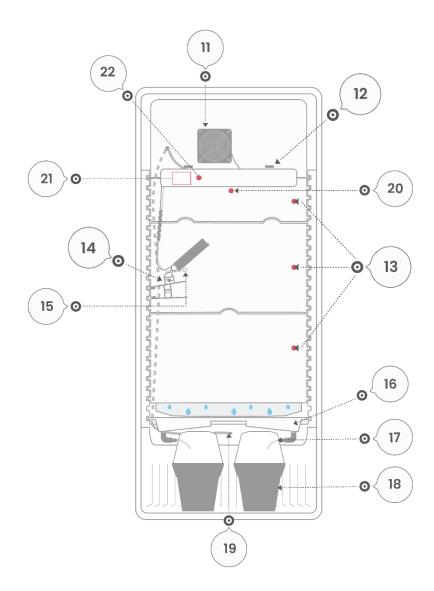
- 6... CO2 cylinder
- 7... Pressure reducer CO2 output
- 8... Fine needle valve (flow rate CO2)
- 9... Bottle cage
- 10... Reducer





## System

- 11... Rear wall fan
- 12... Fixing screws module
- 13... Rear panel panels
- 14... Rotary Clip
- 15... Rotary fan
- 16... Condensate Tray
- 17... Water Hose
- 18... Pots
- 19... Condensate Hole
- 20... Hook for drying net
- 21... Display
- 22... Rotary Click Knob





# Safety

#### **Intended Use**

The product is a plant cultivator for indoor use. It is intended exclusively for the cultivation of plants and must not be used for other purposes.

#### **Foreseeable Misuse**

Use the product exclusively for its intended purpose. The following uses are not permitted:

- Outdoor operation
- Operation in humid or wet environments
- · Operation under direct sunlight
- Operation in an industrial environment
- Independent modifications or adjustments to hardware or software
- Operation by children or persons with limited physical, sensory, or mental abilities

### **Safety Instructions**

To reduce the risk of injury, death, electric shock, fire, and property damage, always observe the following safety instructions.

### **Assembly**

- All assembly work must only be carried out when unplugged (de-energized).
- Read the instructions very carefully.
- Observe the instructions for unpacking the device.
- When opening the packaging, be careful not to use sharp or pointed objects. Careless opening can lead to damage or injury.
- Do not touch the mains plug with wet hands.
- Only plug the mains plug into an easily accessible socket so that you
- can quickly disconnect the power cable from the mains in the event of a malfunction.
- Do not leave children alone with the packaging film.
- Connecting the power connection box must only be carried out by qualified personnel.

### Commissioning

- Only connect the device if the mains voltage of your socket matches the specification on the device's type plate.
- Do not operate the device if it shows visible damage.
- Ensure that the fans of the insert are not covered.
- Protect all components from moisture.
- The device must not be operated outdoors.
- Operate the device in well-ventilated rooms.



- The device must be positioned at least 10cm away from the wall.
- The device must not be placed next to heaters/stoves.
- Keep the device away from open flames, hot surfaces, water exposure (shower, bathtub, sink, etc.), and direct sunlight.
- Caution: The allowed ambient temperature is 10-35°C.
- Use the device exclusively with a properly installed socket with a reliably connected protective conductor.
- Do not bundle, pull, damage, or modify the mains cable, do not expose it to heat, and do not place heavy objects on it.
- For installation or connecting the power line, absolutely consult qualified personnel.

## Installation and Connection of the Terminal Box (see assembly instructions)

Installation must only be carried out by persons with relevant electrotechnical knowledge and experience.

Improper installation endangers:

- your own life;
- the lives of users of the electrical system.

With improper installation, you risk serious property damage, e.g., due to fire.

You face personal liability for personal injury and property damage.

Contact an electrical professional

For installation, the following specific technical knowledge is required:

- the applicable "5 Safety Rules"; Disconnecting, securing against re-connection;
- Verifying absence of voltage; Earthing and short-circuiting, covering or barricading adjacent live parts;
- Selection of appropriate tools, measuring devices, and personal protective equipment if necessary;
- Evaluation of measurement results;
- Selection of electrical installation material to ensure disconnection conditions;
- IP protection classes;
- Installation of electrical installation material;
- Type of supply network (TN system, IT system, TT system) and the resulting connection conditions (classic earthing, protective earthing, required additional measures, etc.).

### Operation

- Ensure that no objects are inserted into the openings/connections.
- The device is only de-energized when the mains plug has been removed from the socket.
- The device must not be operated by children or persons with limited physical, sensory, or mental abilities.
- Ensure that no liquids run over the device.
- Ensure that no liquids run next to the plant pot saucer.
- Keep the user manual.



- If you pass the device on to third parties, be sure to include the user manual.
- Regularly check for liquids behind the condensate tray and remove them.
- For proper operation, it is strongly recommended to use only the included components.
- Under no circumstances look directly into the interior lighting.
- Do not reach into the fans.
- Do not touch the LED lamps.
- Ensure that no body parts are pinched when closing the door.
- Ensure that the device is set up level.
- Place the device on a firm surface and protect it from tipping over or wobbling.
- Regularly clean the device with antibacterial cleaning agents.
- Do not make any changes to the product.
- Seek help from trained professional personnel.
- Adhere to the instructions in the manual and under no circumstances operate other devices inside the plant cultivator.

### Cleaning, Maintenance, Servicing

- Before cleaning the device, switch it off and unplug the mains cable from the socket.
- When cleaning, pay attention to hazard warnings and ensure that cleaning agents do not harm people, plants, or plastic parts.
- Do not open the housing and leave repairs to qualified personnel.
- Liability claims and warranty are excluded for independently carried out repairs or improper connection.
- Replace damaged components only with original spare parts.
- If unsuitable cleaning agents are used, the surfaces of the device can be damaged.
- Do not use aggressive cleaning agents or sharp or metallic cleaning objects such as brushes with metal or nylon bristles.
- Regularly free the fans from dust to prevent overheating.
- If the device is not used for a long time, unplug the mains cable from the socket and open the door.
- Do not spray cleaners or similar substances into the interior of the device.
- Before dismantling, the mains cable must be unplugged from the socket.

### Behavior in case of emergency

- Unplug the mains plug from the socket.
- Let the device cool down.
- Contact the device manufacturer.



### **Operator's Duty of Care**

For safe operation, the operator of the product must fulfill the following obligations:

- Read and follow the user manual.
- Observe the safety instructions.
- Obtain assistance from qualified personnel when connecting the power line.
- Regular maintenance and care of the device.
- Regular cleaning of the device.

# **Setup and Assembly**

### Unpacking the Box and the FG Module

The plant cultivator (large package) and the FG module along with accessories are shipped separately for logistical reasons. During transport, absolutely ensure that the packaging including the contents is not damaged or dropped. Carry the plant cultivator with at least one other person.

Transport the second package carefully and securely as well. Open the boxes very carefully so as not to scratch or damage the device. Keep the packaging for possible returns. Dispose of the packaging material at the designated disposal points.

### **Setting up the Box**

When setting up, ensure that the device has sufficient distance from other surfaces (walls, cabinets, etc.). A minimum distance of 20-30cm is recommended. Absolutely read the safety instructions for the box. Secure the box against tipping over and set it up so that the entire base surface stands stably on a firm and dry surface. Adjust the feet (rotatable) so that the box stands stably and does not wobble. Furthermore, it is important to ensure that the box is "in balance", i.e., straight. A spirit level or similar can be used for this.

**CAUTION:** The plant cultivator must stand upright for at least 12 hours before the mains plug may be inserted.

### **Device Assembly**

Please read these assembly instructions carefully and follow the instructions as described and in the order given. Failure to do so can result in damage which can significantly impair function. Please read the safety instructions carefully before beginning assembly.

### Installation

### **Before Commissioning**

Read all instructions and safety notices carefully and ensure that you have followed all steps exactly according to the instructions. Otherwise, damage, injury, or problems during operation may occur.



After assembly, plug the mains plug into a socket. Observe the specifications regarding mains voltage and the safety instructions. When you plug in the Fridge Grow module or the system, the LED lighting may briefly illuminate. Therefore, never look directly into the LED lamps.

After switching on, the box automatically begins to regulate itself in a defined standard mode. To set your desired climate parameters, you must first set the basic settings. There are 2 options for this:

- Settings directly via the display
- Settings via app or browser (recommended)

### Setting up the FG Module and Integrating it into the Home Network

### **Making Settings Directly via the Display**

To use the system, you do not necessarily have to be connected to the internet. All settings can be made "offline" via the display. The current values can also be read from the display. By rotating the rotary-click knob, you can navigate the menu, and by pressing the knob, you confirm the respective input or jump back or into the submenu. Due to the limited size of the display, it can be very difficult for some people to read. In these cases, a magnifying glass or using the app or portal is recommended.

**Note:** The display has a sleep mode integrated to prevent possible disruptive light. After 30 seconds without interaction, the display will automatically turn completely black. You can reactivate it by rotating or clicking the knob.

**CAUTION:** Without a connection to the internet, no updates can be received and installed. Furthermore, graphs and recordings can only be accessed via the app or portal (access via browser). It is therefore recommended to connect the FG module to the home network and thus to the internet.

The setting of climate programs and control values is explained in more detail in the cultivation instructions section.



# Symbols and their explanation

Depending on the mode, different icons are displayed.

- 1... Temperature
- 2... CO2
- 3... Humidity
- 4... Wi-Fi signal
- 5... Day/Night Cycle



# Settings on the display

All settings can also be made via the display.

Attention: Graphs cannot be analyzed via the display. The menu items are displayed differently depending on the respective climate mode (e.g.: Are there no CO2 settings in the drying mode, etc.)

For the correct settings and climate modes, the cultivation recommendation must be used. Below is the maximum number of setting parameters.

- Control mode
- Breeder = incubator
- Greenhouse
- Small Plant
- Big Plant = Large Plants
- Dry = Drying
- Dayrise/Nighhtfall = light phase day/dark phase night
- Day/Night
- Temperature
- Humidity
- CO2 = CO2
- Max Light = maximum light intensity
- Sunrise/Sunset
- System Time (UTC) = System Time (Central European Time +1h)



### System time

The system time is given as UTC. This corresponds to the Coordinated Universal Time and this in turn is the CET (Central European Time Zone +1 hour), which is valid for Germany and Austria, for example.



Attention: If the module has a connection to the Internet, this time does not have to be set separately. In this case, the module gets the time automatically.

### **Settings via App or Browser**

The easiest and most convenient way to operate Fridge Grow is via the app or the portal. Here you can easily set all parameters, analyze graphs over time, and read the current measured values. It is up to you whether you prefer an app or a browser version. You can, for example, use both the app and the portal with your mobile phone. The difference is that the portal can only be used via a browser. The app does not require any other software or app.

**Note:** To use the app and portal, an internet connection is required. To do this, you must connect Fridge Grow to your home network and absolutely ensure that the connection is good to very good. Internet disconnections can lead to gaps in the recording and long waiting times.

### **Settings and Operation**

For Fridge Grow to be used, the appropriate settings must be made depending on the growth stage. These can be done as described above either directly via the display or via the app/portal. The following section explains the connection with the app/portal. Offline operation (directly via the display) does not require an internet connection.

### **Connecting to the Portal**

Using the portal is not strictly necessary but facilitates work and enables graph analysis. For the measured data to be displayed, Fridge Grow must be connected to the portal. 2 steps are required for this.

- 1. Connection to the home network
- 2. Registration on the portal



### **Connecting to the Home Network**

The connection to the home network is necessary to enable communication with the portal. The connection to your home network can be made either via a browser or directly via the display.

Option 1: Connection via Browser

Option 2: Connection via Display

### Option 1 (recommended) - Establishing the connection via browser (Smartphone, Tablet, PC,...)

In this case, you first connect a third-party device (smartphone, PC, etc.) to the controller's WLAN. Then the controller is connected to the home network and can subsequently be found in this home network. Data can then be exchanged with the portal via the home network. A browser is a program like Firefox, Chrome, Brave, Edge, etc..

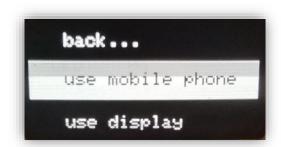
**Note:** If you encounter problems, it may be helpful to switch browsers or turn off any plugins.

- 1. Establish a connection to the FG module's WLAN (Accept the WLAN if an error message appears stating that this connection is not connected to the internet).
- 2. Search for the home network. Connect and enter the password (Caution! Some devices refuse to open the home network search. Check security settings or use another device if you have problems with the home network search).
- 3. Access the portal at <a href="http://plantalytix-app.com/">http://plantalytix-app.com/</a>.
- 4. Generate a connection code on the FG module and add a new device with this code in the portal.

### Connecting to the Module's WLAN via Browser

In the display menu, go to the WIFI settings and select "use mobile phone".







The controller's Wi-Fi is now displayed. This SSID is unique and is regenerated every time. Turn on the Wi-Fi on the device (e.g. smartphone, laptop, etc.) and look for the Wi-Fi shown on the display. In this case, that would be PLANT\_903112. There is no password request.



If the Wi-Fi network is found, press "Connect" and accept messages indicating that no Internet is available with this Wi-Fi network (this message only appears in rare cases). After that, you are directly connected to the module. Now the next step is to connect to the Internet.

# Connect module to the home network (browser)

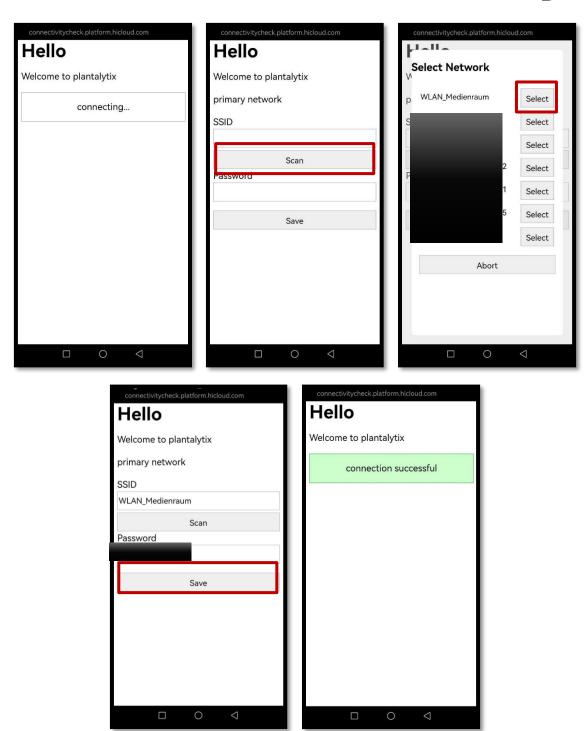
By default, after connecting to the SSID, i.e. the WLAN of the module, a page opens where the home network (SSID) and password must be entered. Clicking on "Scan" will display all available Wi-Fi networks. Alternatively, the SSID can also be entered manually. Please make sure that the module is in the reception area of the home network or, if necessary, install a signal amplifier (repeater or similar). For full functionality, it is essential that there is a stable and good signal to the home network or the Internet. Select the home network or enter it manually. If there is no input mask, check the security settings of your device with which you want to integrate the module and use the Mask if necessary, another device.

If you have pressed scan, the corresponding Wi-Fi network will be selected via "Select". The WLAN is then automatically entered in the "SSID" field. Next, the password must be entered and "Save" must be pressed to save.

After that, the FG module tries to connect to the home network and thus to the Internet. If the connection is successful, a green box with "connection successful" will be displayed.

If this is not the case, check the SSID and password again and enter it again. If this step is successful, the FG module is connected to the home network, or the Internet and the portal can be used.





Open the Plantalytix Portal with a device and a browser of your choice at this link: http://plantalytix-app.com/



**Option 2 - Connect via the display** 



Once selected, the controller will start searching for Wi-Fi networks.



Select your home network and press the rotary knob



In the next step, you can enter the password via the rotary click button. By pressing the button for a long time, you get to the sub-items "Back" and "Done". Make sure that a connection to the home network is possible and that a good signal arrives at the FG module.



By pressing the button on "Done", the password is taken over and the connection to the network is established. Pressing "Back" deletes the last letter. Be sure to enter the password correctly.





If the connection is successful, "connected!" will be displayed on the display.



### Registration on the portal

The portal is used to manage the Plantalytix products and to access the graphs and other features from anywhere. To do this, the module must first be registered (paired) in the portal. To be able to log in to the portal, it is essential to connect to the home network in advance.

### Generate pairing code

To connect to the portal, the module must be connected to the home network. After that, a code is generated via the display. This code, in turn, is entered in the portal and this registers the module in the portal. Several controllers and fans can also be hung in the portal according to the same principle and monitored or controlled. The code is unique and is regenerated every time.



**Attention**: If there is a problem with registering in the portal, be sure to generate a new code before entering the code in the portal again.

In the menu under WIFI, select "connect to portal".



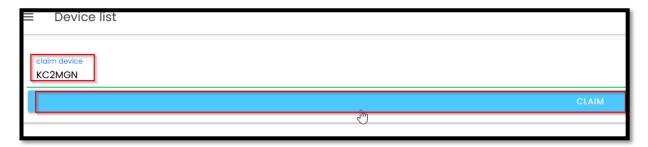
After that, the pairing code will be displayed (the code will be different from the sample image and will be regenerated each time). Write down or memorize the code and enter it into the portal later.



### Connecting the FG module to the portal

Go to http://plantalytix-app.com and sign in. If you don't have an account yet, be sure to create a new account under "Create Account" and log in.

The generated code must be entered under "claim device" or "pair device". To do this, click in the "claim/pair device" field and enter the code there and press the blue button.

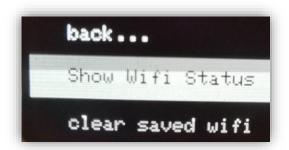


After that, the FG module is displayed directly in the overview and can be controlled or monitored.



### **View Wi-Fi status**

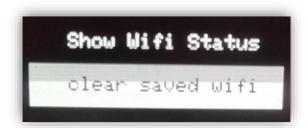
The Wi-Fi status shows the connected home network and IP address. This can be important if it is not clear whether and with which network you are connected.





### Clear Wi-Fi

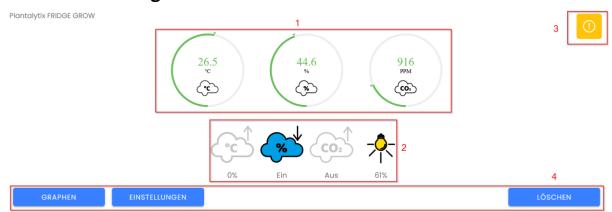
This setting deletes the stored Wi-Fi.



Settings are deleted.



## **Portal and settings**



- 1... Overview of the traffic light system for temperature, humidity and CO2
- 2... Switching of outputs and components
- 3... Error messages and logs (only for Plantalytix support)
- 4... Navigation

#### Overview

The current measured values are displayed here. These are updated regularly. Please note that the values do not change to the second. It can therefore happen that it takes a few seconds until the current values are displayed.

### **Outputs and components**

Heating, cooling/dehumidification, CO2 and light are displayed in order. For heating and lighting, only the current percentage is displayed due to the dimming (e.g.: at 61% the lamp is dimmed to 60%). These values adjust automatically and are chosen in such a way that the settings are achieved in the best possible way. CO2 and cooling/dehumidification are only switched on and off.

**Attention**: These values are NOT displayed up to date. It can take up to 4 minutes for the values to update.

## **Error messages and hints**

Various hints and error messages are displayed here. These are primarily used for error analysis by our support team. You don't have to worry if more messages are displayed here. This display may change again later.



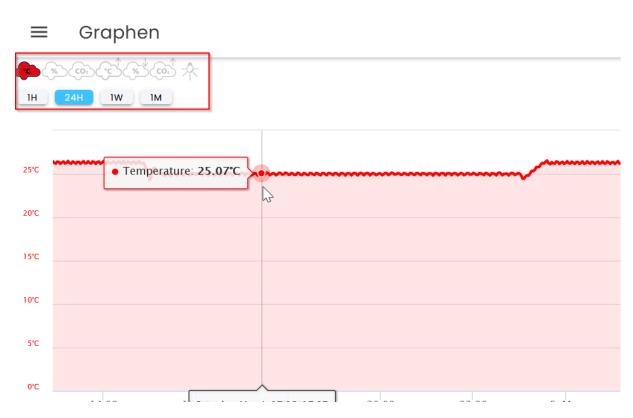
### **Navigation**

Here you can switch to the graphs or settings.

**Attention**: Do not press Delete – here the device will be completely deleted from the overview and must then be reintegrated.

### Graphs

The measured values and the components can be displayed here. The period and the displayed parameters can be displayed individually. All you must do is select the time period and the respective parameters and components in the upper area. The options highlighted in the red rectangle are available for each ad.

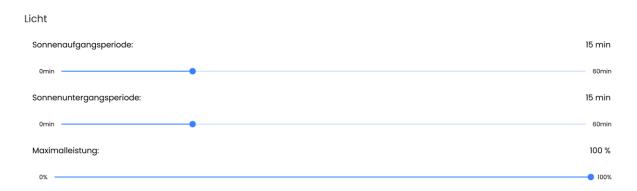


### **Settings**

Here you can set the climate settings and light cycle, etc. The values are transferred via Save. If the defaults are overwritten, it automatically switches to a user-defined mode. This remains active until other parameters are saved or a predefined program (working mode) is selected.

**Attention**: If an air conditioning program or the working mode is selected, the values stored there are transferred back to the parameters.





**Sunrise/sunset** determine the time it takes for the lamp to reach full power. Attention: Depending on the conditions, the lamp may not regulate up to 100%. This is desired and ensures more constant temperatures.

The **maximum power** can be reduced if desired. This means that the lamp will not regulate beyond this value.

# **Technical details**

Voltage	[V]	230
Power frequency	[Hz]	50/60
Power consumption	[W]	700
Operating voltage	[V]	12V / 42V
Auxiliary Stresses	[V]	5V / 3.3V



# **Disposal instructions**

Please note the following disposal instructions.

### Disposal of packaging

Please dispose of the packaging in an environmentally friendly manner. If you need information about the current disposal routes, please contact your disposal point or municipal disposal facility. Do not leave the packaging and its parts to children under any circumstances. There is an acute risk of suffocation due to foils and/or other packaging materials.

### **Disposal of Fridge Grow**

**Before disposal**, the box must be switched off and the power cord must be unplugged. This product must not be disposed of with normal household waste at the end of its life but must be handed in at a collection point for the recycling of electrical and electronic equipment.

### Information about the manufacturer

Name: microgreenbox GmbH

Address: Galgenau 39, 4240 Freistadt





### EG-Konformitätserklärung

Der Hersteller / Inverkehrbringer microgreenbox gmbh erklärt hiermit, dass folgendes Produkt

Produktbezeichnung:

Plantalytix Fridge Grow 2.0



allen einschlägigen Bestimmungen der angewandten Rechtsvorschriften der

## Niederspannungsrichtlinie 2014/35/EU EMV Richtlinie 2014/30/EU RoHS-Richtlinie 2011/65/EU

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Folgende harmonisierte Normen wurden angewandt:

EN61000-6-3 (2022)

EN61000-6-1 (2019)

EN55014-1 (2017)

EN55014-2 (1997)

Name der Person, die bevollmächtigt ist, die technischen Unterlagen zusammenzustellen: Alexander Polivka / Geschäftsführer

Ort:

Windhaag bei Freistadt, Marktgasse 1

Datum:

7.5.2024

(Unterschrift) Alexander Polivka





# Fridge Grow 2.0

Plant cultivation device

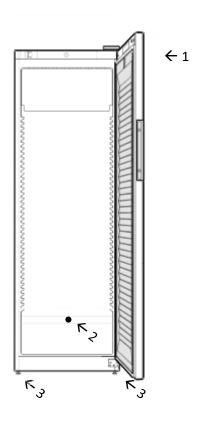
**User Manual and Safety Instructions** 



## **Plant Cultivator Manual**

## Scope of delivery

Check all parts for damage in transit. The plant cultivator is delivered separately by a freight forwarder. The Fridge Grow module (FG module) and accessories will be sent in a separate postal mailing.



- [1] Castle
- [2] Condensation runoff
- [3] Adjustable feet

# Application area of the device

### Intended use

This device is designed for use as a plant cultivator. It is used exclusively for the cultivation of plants. The device may only be operated in combination with the associated FG module (Plantalytix Fridge Grow Module). The device is designed for use in enclosed and dry rooms. All other types of application are not permitted.



#### Foreseeable misuse

The following applications are expressly prohibited:

- Storage and cooling of chemically unstable, flammable or corrosive substances
- 2. Use in potentially explosive atmospheres
- 3. Use outdoors or in damp and splash water areas

#### Nameplate

Technical details and important information can be found on the inside nameplate.

# **General safety instructions**

Keep these instructions for use carefully so that you can refer to them at any time. If you pass on the device, then you also pass on the instructions for use to the subsequent owner. To use the device properly and safely, read these instructions carefully before use. Always follow the instructions, safety instructions and warnings contained therein. They are important so that you can install and operate the device safely and flawlessly.

### Dangers for users:

- Children are not allowed to play with the device. Cleaning and user maintenance must not be carried out by children without supervision.
- The socket must be easily accessible so that the device can be quickly disconnected from the power supply in an emergency. It must be outside the back of the device.
- When the device is unplugged, always touch the plug. Do not pull the cable.
- In the event of a fault, pull the power plug or switch off the fuse.
- **WARNING**: Do not damage the mains cord. Do not operate the device with a defective mains connection cable.
- **WARNING:** Multiple sockets/distribution strips and other electronic devices (such as halogen transformers) must not be placed and operated at the back of devices.
- **WARNING:** Do not close ventilation openings in the appliance housing or in the built-in housing.
- Repairs, interventions on the device and the replacement of the mains connection line can only be carried out by customer service or other qualified personnel.
- Assemble, connect and dispose of the device only according to the instructions provided.

### Danger of fire:

The refrigerant contained (information on the nameplate) is environmentally friendly, but flammable. Escaping refrigerant can ignite.



- WARNING: Do not damage the refrigeration circuit.
- Do not handle ignition sources inside the appliance.
- If refrigerant escapes: Remove open flames or ignition sources near the leak point. Ventilate the room well. Notify Customer Service.
- Do not operate the device near explosive gases.
- Do not store or use gasoline or other flammable gases and liquids near the appliance.
- Do not store explosive substances, such as aerosol containers with flammable propellants, in the device. Corresponding spray cans are recognizable by the printed summary of contents or a flame symbol. Any escaping gases can ignite due to electrical components.
- Keep burning candles, lamps and other objects with open flames away from the appliance so that they do not set the appliance on fire.

### Risk of falling and tipping over:

- Do not misuse plinths, drawers, doors, etc. as a footboard or for support.

### Risk of frostbite, numbness and pain:

 Avoid permanent skin contact with cold surfaces or refrigerated/frozen food or take protective measures, e.g. use gloves.

### Risk of injury and damage:

- **WARNING:** Risk of injury due to electric shock! There are live parts under the cover.
- **ATTENTION:** The device may only be operated with original accessories from the manufacturer or with accessories from other suppliers approved by the manufacturer. The user bears the risk of using non-approved accessories.

#### Risk of crushing:

- When opening and closing the door, do not reach into the hinge. Fingers can become trapped.

### Qualification of specialist personnel:

Skilled personnel are persons who, through their professional training, knowledge and experience as well as their knowledge of the relevant standards, can assess and carry out the work assigned to them and to identify possible hazards. You must have training, instruction and authorization to work on the device. Only have specialist personnel carry out repairs or modifications to the device.



# Commissioning

### Installation conditions and location

If live parts or the mains connection cable become damp, a short circuit can occur.

The device is designed for use in enclosed spaces. Do not operate the device outdoors or in a damp and splash water area.

#### Leaking refrigerant and oil

The refrigerant it contains is environmentally friendly but flammable. The oil it contains is also flammable. Escaping refrigerant and oil can ignite at a correspondingly high concentration and in contact with an external heat source.

- Do not damage the pipes of the refrigerant circuit and compressor.
- Do not place the appliance around direct sunlight, next to the stove, heater and the like.
- The optimal location is a dry and well-ventilated room.
  If the device is placed in a very humid environment, condensation may form on the outside of the device → .
- The more refrigerant there is in the unit, the larger the room in which the unit is located. In rooms that are too small, a leak can result in a flammable gas-air mixture. For every 8 g of refrigerant, the installation room must be at least 1 m3 in size. Information on the refrigerant contained can be found on the nameplate in the interior of the unit.
- The floor at the site must be level and level.
- The installation site must be load-bearing for the weight of the device, including the maximum storage.

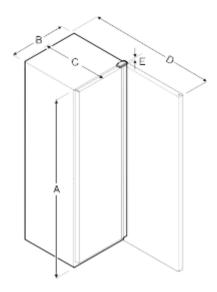
#### **Electrical connection**

If a power cord or plug touches the back of the device, the vibration of the device can damage the power cord or plug, causing a short circuit.

- Make sure that no power cord gets stuck under the device when you set the device up. Place the device so that it does not touch any plugs or power cords.
- Do not connect devices to sockets in the back of the device.
- Do not place and operate multiple sockets or distribution strips as well as other electronic devices (such as halogen transformers) at the back of devices.



## **Device dimensions**



Α	В	С	D	E
1684	597	654	1203	23
mm	mm	mm	mm	mm

A = Appliance height B = Appliance width without handle C = Appliance depth without handle D = Appliance depth when the door is open E = Hinge height

# **Transporting the device**

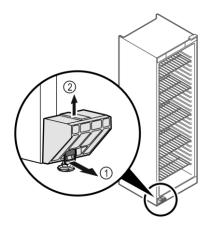
- When using for the first time: transport the device packed.
- For transport after initial commissioning (e.g. moving): Transport the device unloaded.
- Transporting the device upright.
- Transport the device with the help of two people.

# **Unboxing the device**

- Check the device and packaging for damage in transit. Contact the supplier immediately if you suspect any damage. Do not connect the device to the power supply.
- Remove any materials from the back or side walls of the appliance that may prevent proper installation or ventilation.
- Remove the connection cable from the back of the device. Remove the cable holder,
  otherwise vibration noises will occur!



## Remove transportation lock



Pull the tab (1) forward. Pull the transport lock (2) upwards. Base holder remains on the device

# Set up the device

- Set up the device with 2 people.
- The door may strike the wall and be damaged, thereby → protecting the door from hitting the wall. Attach door stops, e.g. felt stoppers, to the wall.
- Connect all necessary components (e.g. power cable) to the back of the device and lead it to the side.
- Cables can be damaged → Do not pinch cables when pushing them back.
- Place the device either freely in the room or directly against a wall.

# Align device

- Align the device horizontally and vertically.
- Compensate for uneven ground with the adjustable feet.

**Caution**: Improper height adjustment of the adjustable foot can lead to serious or even fatal injuries. Incorrect height adjustment can cause the lower part of the adjustable foot to come loose and tilt the device → Do not turn the adjustable foot out too far.



**Lift the device** →, turn the base clockwise.

**Lower the device,** → turn the adjustable foot counterclockwise.



# **Setting up multiple devices**

Attention! Risk of damage due to condensation between the side walls!

- Do not place the appliance directly next to another cooling appliance.
- Place devices at 3 cm between the devices.
- If the humidity is higher, increase the distance between the devices.

## After installation

- Peel off protective films from the outside of the housing.
- Clean the device.
- If necessary: disinfect the device.
- Keep an invoice to have device and dealer data available for services.

# Disposing of packaging

Attention! Suffocation hazard due to packaging material and foils!

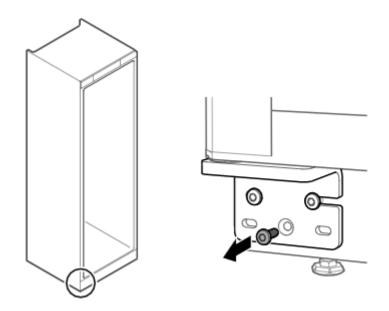
→ Do not let children play with packaging material.

The packaging is made of recyclable materials:

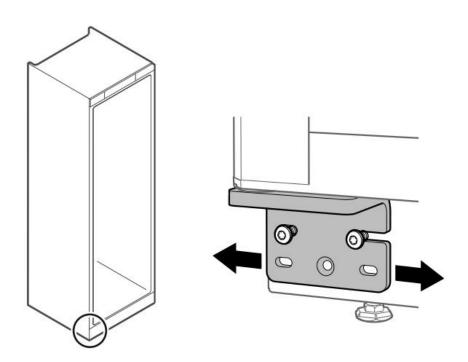
- Corrugated cardboard/cardboard
- Parts made of foamed polystyrene
- Polyethylene films and bags
- Polypropylene strapping
- Take the packaging material to an official collection point.



# Align the door



- Remove the middle screw at the lower hinge angle.



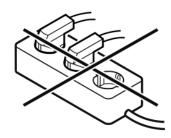
- Loosen both screws slightly and move the door to the right or left with the hinge angle.
- Tighten the screws as far as they will go
- The door is straight.



### Connect the device

Attention! Risk of fire due to improper connection!

- Do not use extension cords.
- Do not use distribution strips.
  - → Do not connect the device to off-grid inverters, such as solar power systems and gasoline generators.



### Ensure that the following prerequisites are met:

- Only operate **the device with** alternating current.
- The permissible voltage and frequency is printed on the nameplate.
- Socket is grounded and electrically fused in accordance with regulations.
- Fuse tripping current is between 10 A and 16 A.
- Power outlet is easily accessible.
- Check the electrical Connection.

### Turn on the device

Ensure that the following prerequisites are met:

- Device is set up, aligned and a suitable socket is available.
- All adhesive strips, adhesive and protective films as well as transport locks in and on the device have been removed.

Attention: For proper operation, the FG module and accessories must be installed according to the conversion instructions.

## **Storage**

## **Storage Notes**

If the device is to be stored, it is important to leave the door open. Otherwise, mold or the like can grow in the interior. arise.

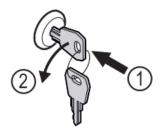


# **Equipment**

# **Safety lock**

The lock in the device door is equipped with a security mechanism.

### **Lock device**



- [1] Push the key in.
- [2] Turn the key 90° counterclockwise.
- → The device is locked.

### **Unlock device**



- [1] Push the key in
- [2] Turn the key 90° clockwise
- → The device is unlocked.



### Maintenance

## Cleaning the device

### **Prepare**

Risk of short circuits due to live parts! Electric shock or damage to electronics.

- 1. Turn off the device.
- 2. Unplug or turn off the fuse.

## Cleaning the housing

- 1. Open the door.
- 2. Empty the device.
- 3. Clean the interior and equipment with lukewarm water and a little washing-up liquid.
- Do not use sandy or acidic cleaning agents and do not use chemical solvents.
- 5. Clean and dust the refrigeration machine with heat exchanger (metal grille on the back of the device) once a year

**Attention!** Improper cleaning can cause damage to the device.

- 6. Only use soft cleaning cloths and pH-neutral all-purpose cleaners.
- 7. Do not use abrasive or scraping sponges or steel wool.
- 8. Do not use harsh, abrasive, sand, chloride or acidic cleaning agents.
- 9. Do not use steam cleaning equipment  $\rightarrow$  Hot steam can cause burns and damage surfaces.
- 10. When cleaning the device, make sure that no cleaning water penetrates the electrical components.
- 11. Wipe the case with a soft, clean cloth. In case of heavy soiling, use lukewarm water with neutral cleaner.
- 12. Condensation drainage: Remove deposits with a thin tool (e.g. cotton swabs).

Attention! Risk of short circuits due to live parts! Electric shock or damage to electronics.

- 13. Turn off the device.
- 14. Unplug or turn off the fuse.

### After cleaning

- Rub the appliance and equipment dry.
- Connect the device and turn it on.



## **Decommission**

- Empty the device.
- Turn off the device.
- Unplug the mains.
- Cleaning the device
- Leave the door open so that there are no bad odors.

# **Disposal**



The device still contains valuable materials and must be collected separately from unsorted municipal waste.

For Germany: You can dispose of the device free of charge at the local recycling and recycling centers via the class 1 collection containers.

### Leaking refrigerant and oil!

The refrigerant it contains is environmentally friendly but flammable. The oil it contains is also flammable. Escaping refrigerant and oil can ignite at a correspondingly high concentration and in contact with an external heat source.

- Do not damage the pipes of the refrigerant circuit and compressor.
- Remove the device without damage.
- Dispose of batteries, lamps and equipment according to the above specifications.