User Manual

Vertical Cooler
NG26 Coke & Go

These models may contain any of the following suffixes in different order and combination: **C, H, N.**

Index

Note:

Pictures and temperature control may vary.

General Recommendations

- Read this manual carefully before any procedure.
- Do not let your cooler be repaired by unqualified personnel.
- The installation must be execute by the technical service provider authorized by Metalfrio. (Consult the current rates with your supplier or call the Metalfrio Customer Service).
- Follow the electrical installation instructions.
- Periodically check the state of electrical installations.

45° Max.
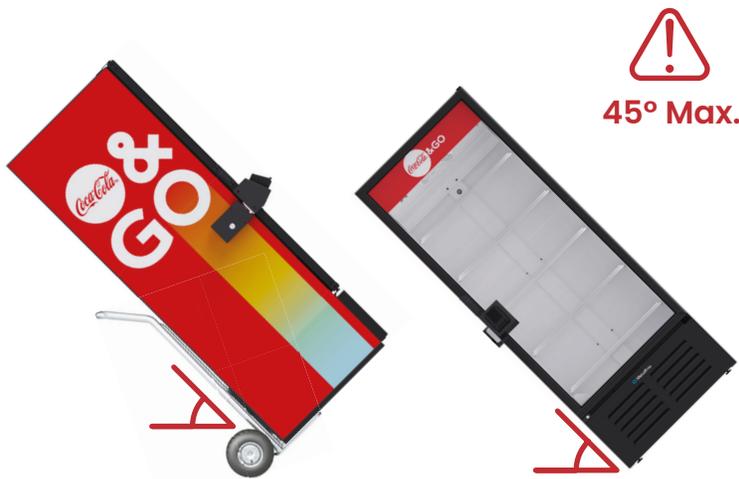
Installation place

- When unpacking, do not tilt the cooler more than 45 degrees, to prevent compressor's oil from contaminating the cooling system.
- Do not expose the cooler to heat sources such as; stoves, ovens, green houses, hot walls and direct sunlight.
- The cooler should be installed in places with good air circulation that provide good ventilation to the condenser unit.
- We do not recommend the instalation in places with high relative humidity. i.e. laundry rooms
- A minimum clearance of 6 in from the sides and back walls must be mantained.
- Cooler should be perfectly leveled for its proper operation.
- The cooler may not be installed in narrow corridors, only in secure locations with easy accsess.
- Your cooler is only for indoor use.
- If your cooler has top door, be careful when closing, we recommend to close it gently.

Electrical Installation

- Permissible voltage range

| Nominal voltage	127V	220V
Min Voltage	100V	190V
Max Voltage	140V	250V

- In case voltage variation exceeds ±10% tolerance (power supply inestability), a voltage regulator aligned to your nominal voltage is recommended. (Consult with service center).

- Make sure the voltage supplied corresponds to the cooler nominal range.

- Make sure the electrical outlet is properly installed and connect the cooler to an individual outlet.

- The replacement of electrical power cables should be done by an authorized technical service provider.

- The automatic defrost is regulated by an electronic control, there's no need for you to unplug your cooler for a manual defrost.

- Your cooler has a power cord with a ground terminal, ensure that your facilities have a proper socket for this purpose. Do not use plug adapters or remove the ground pin.

- Electrical extentions cords are not adviced, in case of needing an electrical extension cord, the socket must supply the nominal voltage output with a tolerance of ± 10%. Max. cprd length gauge relation must be as follows:

Gauge	Max. cord length	
	127V	**220V**
12 AWG	N/A	298.5 ft
10 AWG	62.3 ft	475.7 ft
8 AWG	98.4 ft	715.2 ft
6 AWG	157.4 ft	N/A

Leveling feet

1. The cooler is shipped with the leveling legs packed inside, screw them into the threaded inserts located at each corner of the cooler's base, as shown in the image.
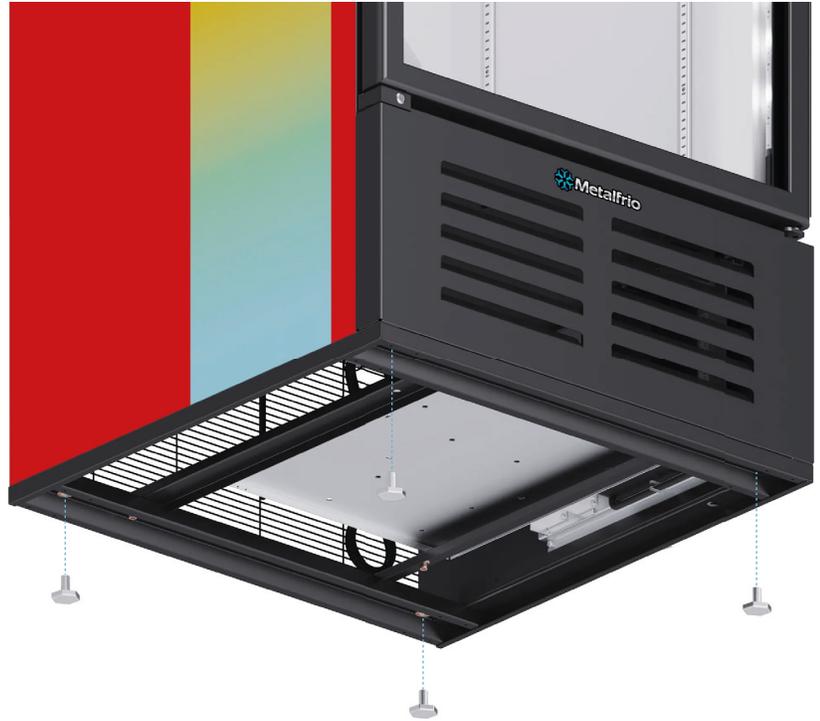
2. With the help of a spirit level, adjust the leveling feet until the cooler sits flat on the floor. Keeping the minimum distance from the floor as possible.
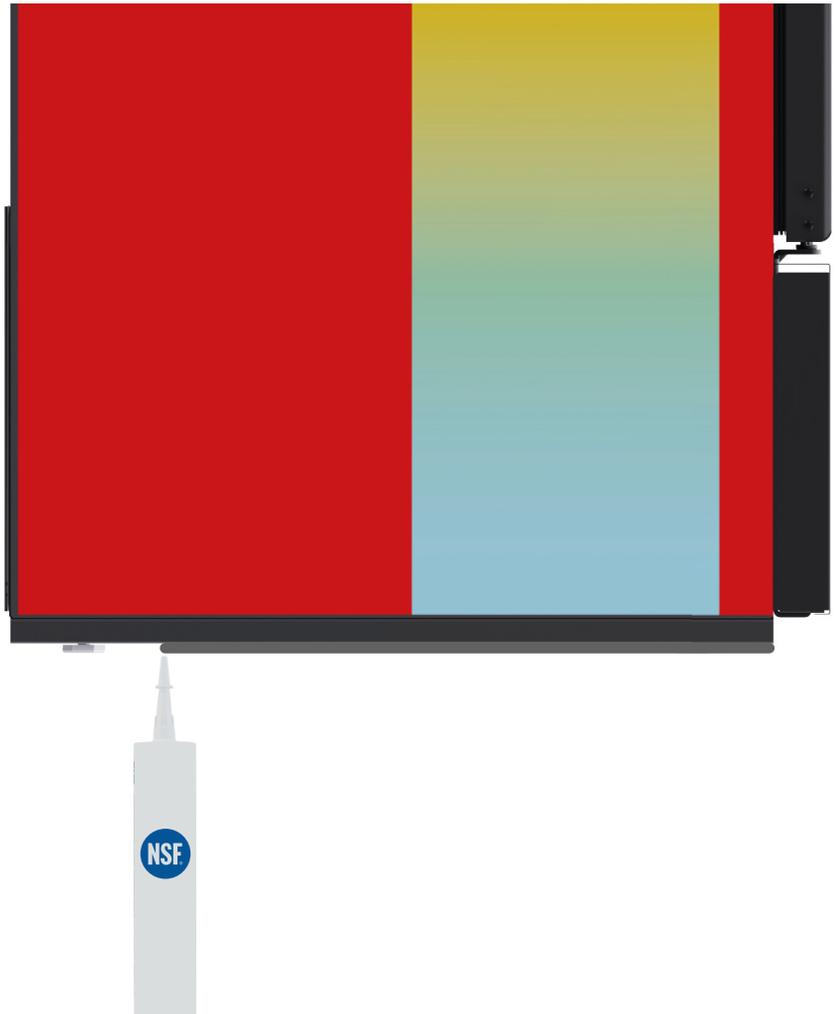
3. Once the cooler is fully positioned on the floor, it's necessary to apply a strip of NSF-approved sealant along all four sides, ensuring complete closure.

Knowing your cooler

Main components

Cabinet

Top camera

LED embedded in cabinet

Adjustable shelves

Pilaster

Door (left opening)

Handle

Payment terminal (not included)

Electromechanical Lock

Power cable

Inner floor

Bottom camera

Magnetic door switch

Front grid

Electronic control inside

Base frame

Leveling feet

Shelves installation

Start by installing the bottom shelf. Ensure there is a 3.14 in (80 mm) clearance for the bottom left camera.

3.14 in (80 mm)

Ensure all shelves are positioned flush against the rear. This will provide a 2.75 in (70 mm) clearance for both the bottom and top cameras.

2.75 in (70 mm)

Note:
- The pilasters are provided with numbers on each slot, wich serve as a rereference to accommodate the shelves supports/clips so that the shelves are leveled.
- e.g: If you have selected the slot marked with number 1 for installing the first clip, then all subsequent clips must also be installed in slots marked with the number 1 to ensure a leveled shelf.

Refrigeration system

All refrigerators are provided with a forced air cooling system, this means that the air is forced to flow through the evaporator coil, which is the device that cools the air, utilizing an internal micromotor.

Evaporator cover
Evaporator coil
Evaporator fan

Top shelf

Glass door

Product

Bottom shelf

Front grid

Condenser unit

Use and product loading

To ensure optimal airflow performance, please adhere to the following recommendations:

- It is recommended to leave the cooler connected for four hours before placing any products inside or starting a defrost cycle.

- Do not introduce hot product, cool the product to room temperature prevously.

- Avoid leaving the door open for long periods of time.

- Do not block the evaporator fan located at the top, this affects the air flow and overall performance.

- Do not place cardboards or any airflow obstruction on the shelves.

- Load the cooler with the declared product capacity only, do not saturate the refrigerator with product.

- Load the cooler with prepackaged product only.

- It is advisable to load the cooler during nighttime hours.

- This cooler is intended to be loaded with PET, glass bottles and aluminum cans only.

- This cooler is intended for the storage and display of non-potencially-hazardous bottled or canned products only.

Antenna installation

Antenna 1

Antenna 2

Antenna Terminal

Payment terminal installation

For service, use a T25 torx magnetic bit for the metal support of the terminal.

For the terminal itself, use a Phillips #2 clamp type magnetic bit.
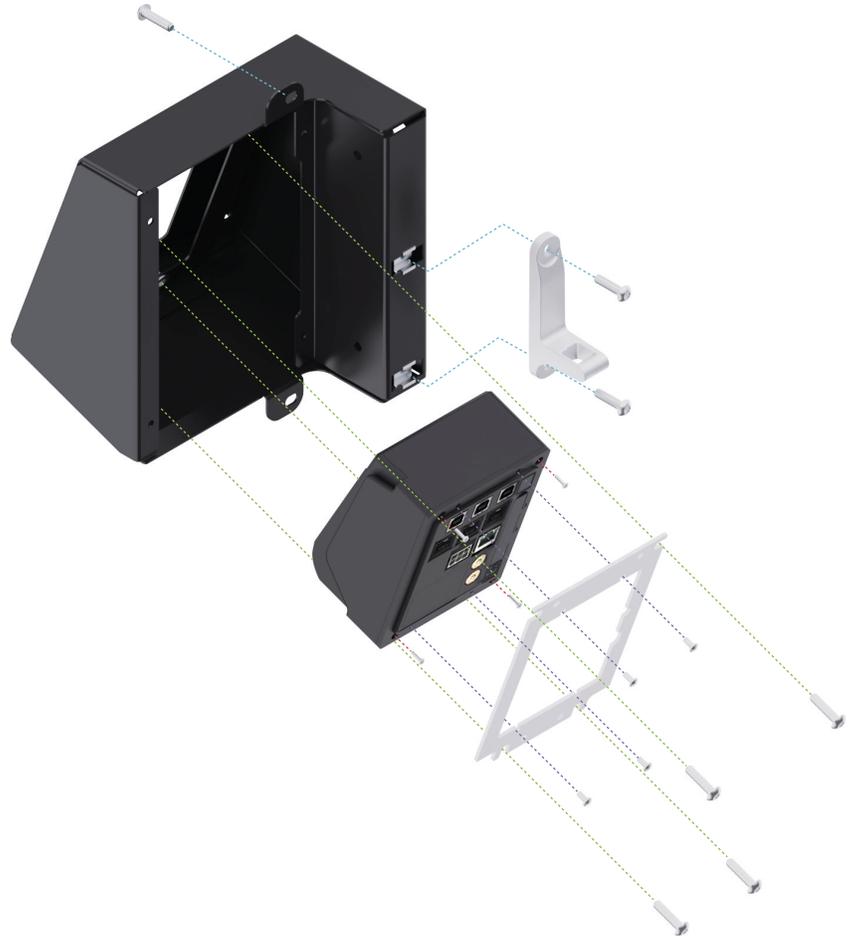
Lock installation

For service, use a T25 torx magnetic bit for both the lock cover and the electromechanical lock.

For the mechanical lock use a 7/8" wrench.

Access to condenser unit

Metalfrio | **Solutions**
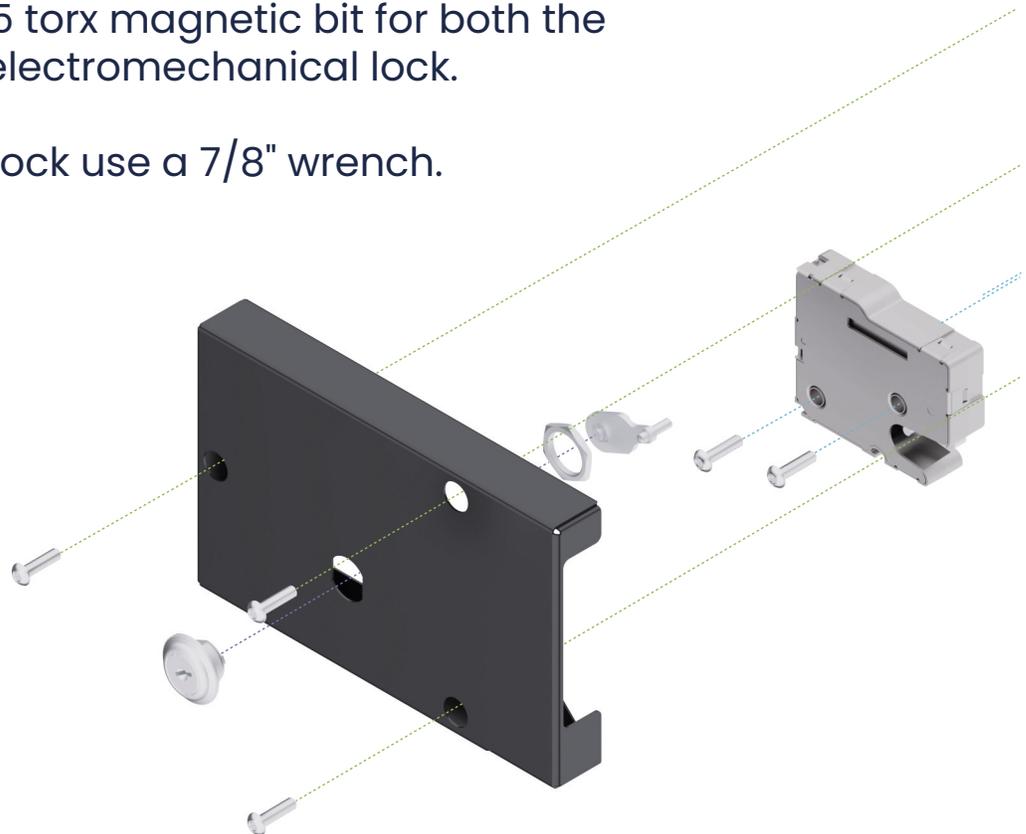
---- To remove front grill, remove the two 1/4" hex screws

---- To remove the Condensing unit, remove the two 1/2" hex screws

Cable schematics

Lock to GPU

The cable runs inside the left wall, exits through the exterior floor at the front of the condenser unit, and is secured with zip ties until it reaches the GPU.

GPU to Antennas

The cable exits from the GPU on the right wall of the condenser unit area, runs along the back inside the protective metal cover and reaches the antennas at the top.

Access to GPU and drivers

1. **Removing Screw:**
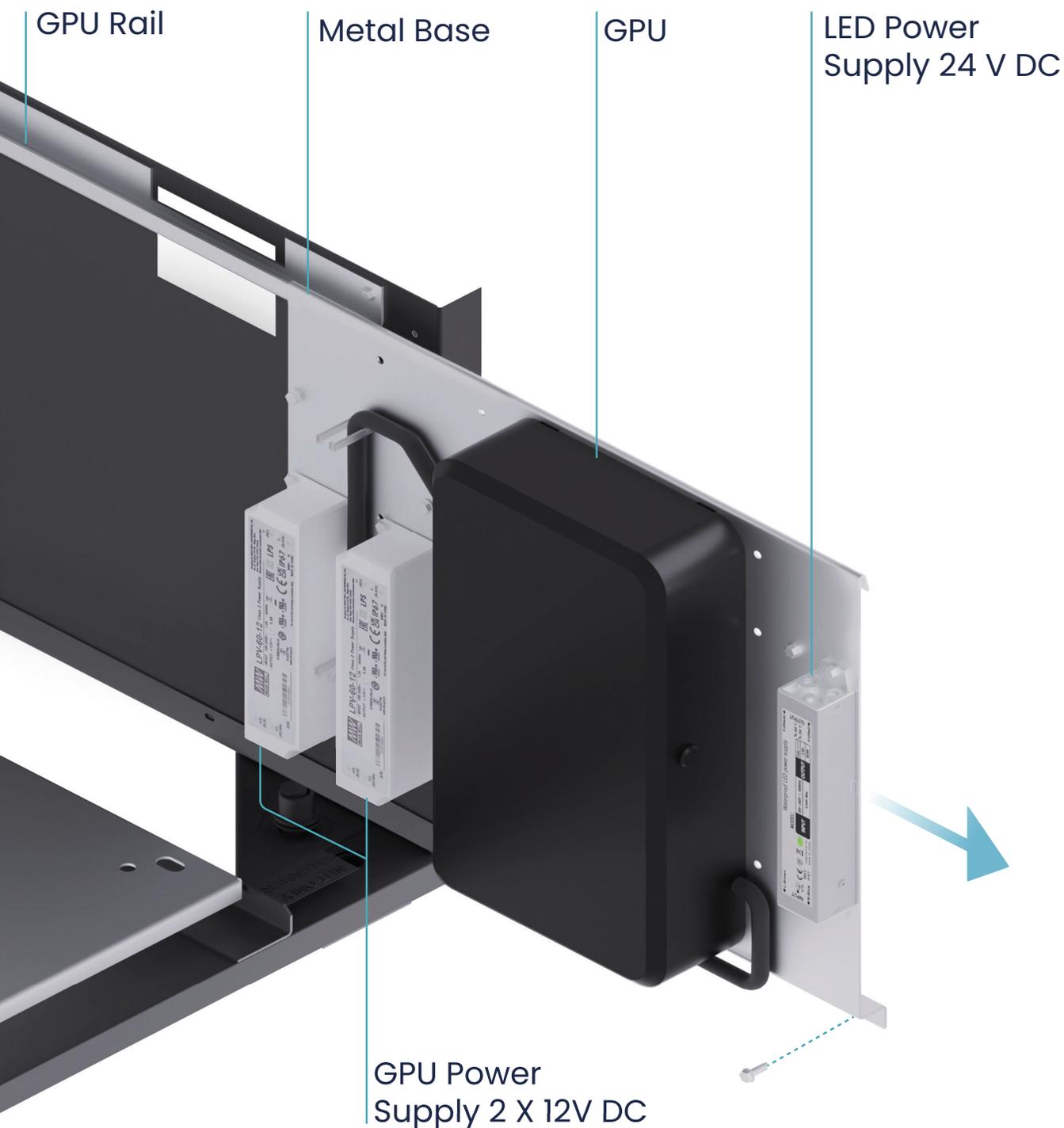   - Locate the 1/4" hex screw at the bottom front corner of the metal base. Use a hex wrench to carefully remove this screw.

2. **Sliding the Metal Base:**
   - Gently slide the metal base along the rail, moving it outwards from the equipment to access the GPU and drivers.

GPU Rail

Metal Base

GPU

LED Power
Supply 24 V DC

GPU Power
Supply 2 X 12V DC

Knowing GPU

Metalfrio | Solutions

1. Power input 12 vdc
2. MFP (Multiple Function Port)
3. Power On / Off switch
4. HDMI output to connect monitor
5. USB 2.0 (general purpose)
6. USB 2.0 (general purpose)
7. USB 3.0 Top camera
8. USB 3.0 Bottom camera
9. USB 3.0 Payment terminal connection
10. USB 3.0 Cooler lock connection
11. TF card
12. Aux
13. RS485
14. RS485
15. RJ45
16. RJ45
17. Secondary antenna
18. SIM card
19. Primary antenna
20. LED interface
21. EOB (Emergency Open Button)
22. Lock / Door sensor connector
23. Lock (NA)
24. RJ485 (+12 vdc)
25. RJ485 (+5 vdc)
26. Relay
27. Relay

Front

Back

Knowing payment terminal

Metalfrio | Solutions

Ethernet   SIM

Power   Antenna
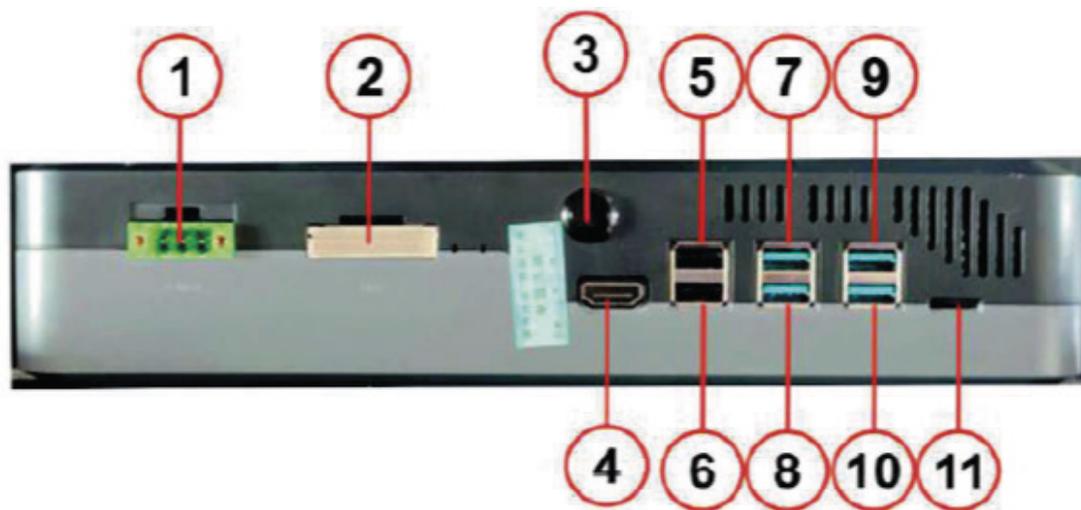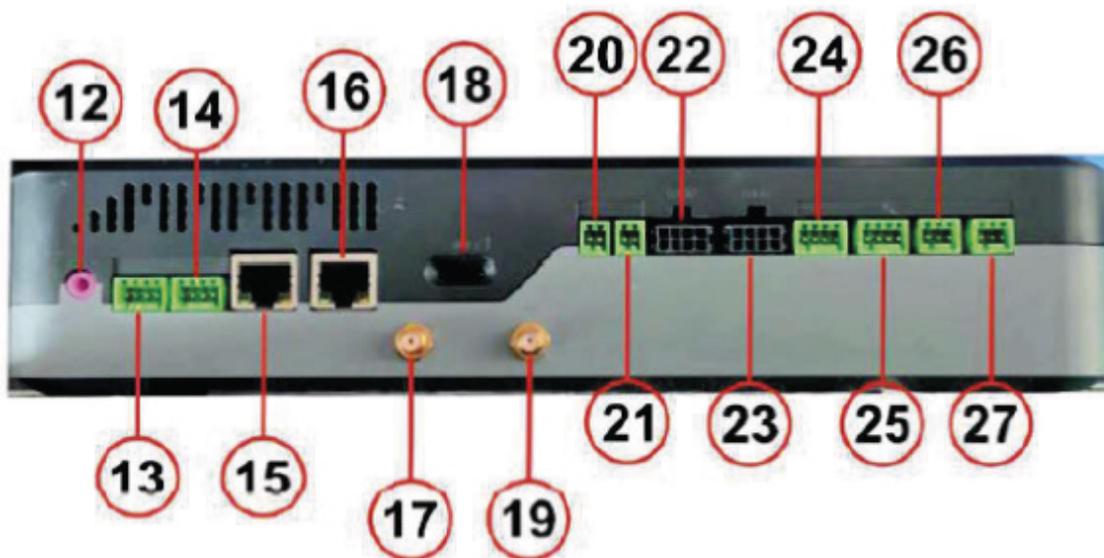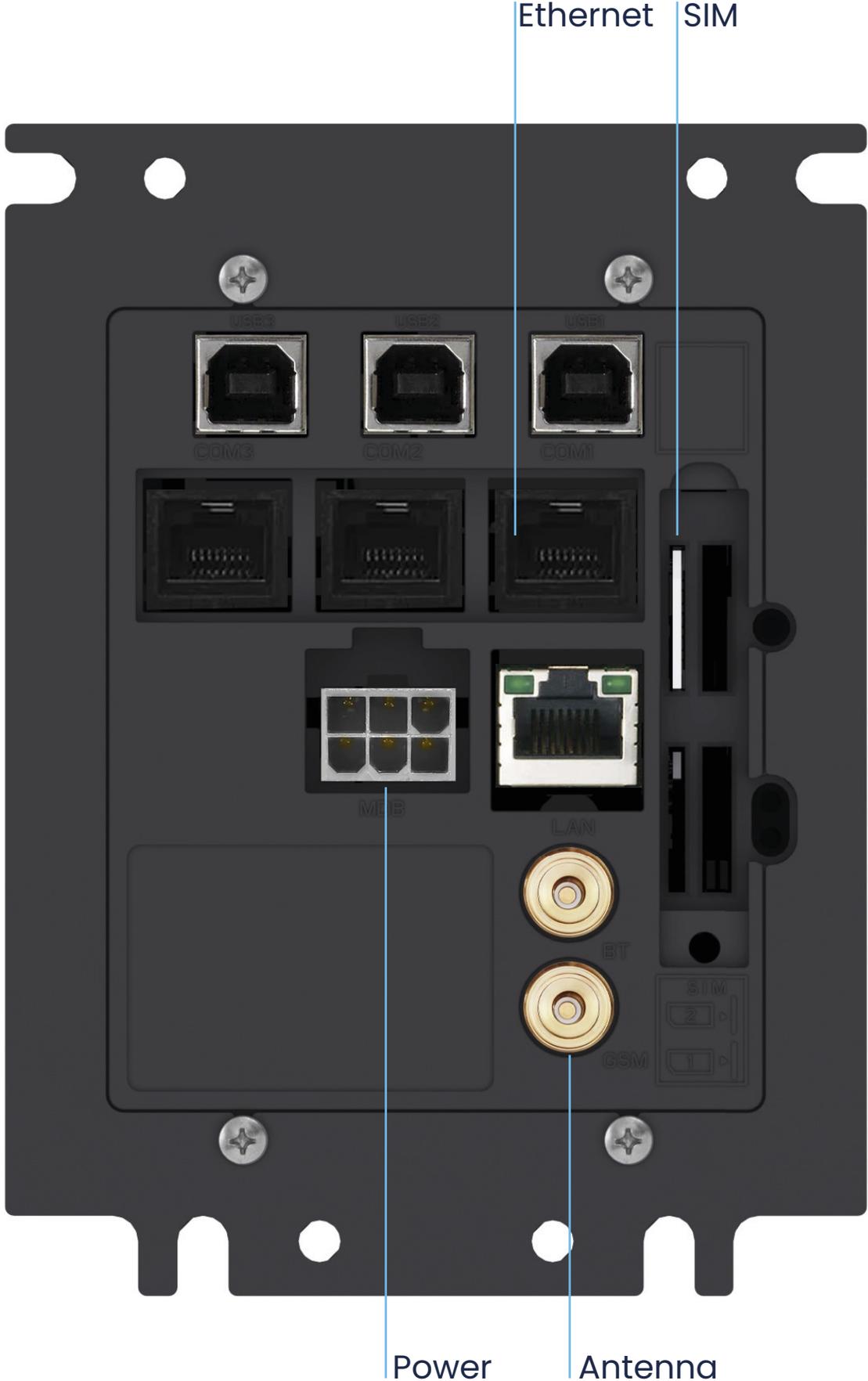
Cleaning

External cleaning

To clean the exterior of the equipment, use only mild soap and water with a soft cloth. Avoid using detergents, abrasive sponges, or steel brushes, as they may damage the surface. Condenser cleaning is recommended every two months, either by blowing out or vacuuming. Regular maintenance ensures optimal performance.
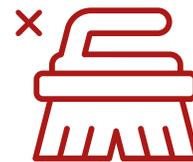
Internal cleaning

Clean the interior using a soft cloth dampened with a solution of water and baking soda (1 tablespoon per liter of water). After cleaning, ensure the surface is thoroughly dried. Do not use a water stream that requires flushing or drainage, as it may cause damage or leakage.

Drain cleaning

When cleaning, replacing, or maintaining, apply silicone around the contour of hose unions. Ensure that the hose is fully inserted into the hopper drain during installation.
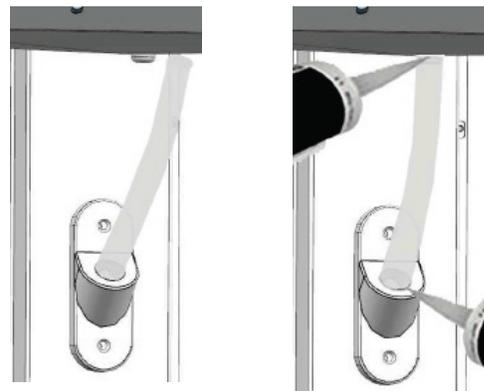
Evaporator cleaning

If your evaporator requires cleaning, please contact our Lifecycle Service Department at **+52 800 006 4380** for assistance.

Life|Cycle
Una solución de grupo Metalfrio | Solutions

LED Replacement
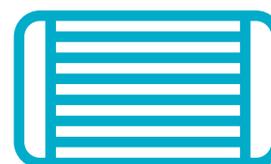
The cooler has embedded LED strips on both sides of the cabinet. To replace them, follow these steps:

1. **Turn off the cooler.**
2. **Disconnect the power cables** from the LED strip to ensure safety.
3. **Carefully remove the LED strip** by inserting a spatula-type tool under one end. Gently pry it loose, applying moderate pressure as you work along the length of the strip. Be cautious not to damage the surrounding plastic cavity.
4. **Replace the removed LED strip** with a new one, ensuring it fits securely. Handle it carefully to avoid any damage.
5. **Reconnect the power cables** to the new LED strip.
6. **Reconnect the cooler** to the power supply.
7. **Check the lighting** to ensure the new LED strip is functioning correctly.

If you still have questions, don't hesitate to contact our Lifecycle Department at **+52 1 800 006 4680** for further assistance.

Table of functions activated by the buttons

| button	normal operation		start up	
	pressing the button alone	pressed together	pressed together	pressing the button alone
▲ UP/MUTE	Buzzer mute. More than 5 sec.: access parameters setting menu, protected by PSW "22".	--	--	--
▼ DOWN/LIGHT	Toggle Light ON/OFF	Start / stop defrost	Start parameters reset procedure	Firm vers
DAY/NIGHT	Toggle DAY/ NIGHT mode			--

Electrical connections

Inputs
- PINS:8-9
  Regulation probe (air return temperature)
- PINS:10-9
  Function of the 2nd input is defined by the parameter A11
  A11=0 = Evaporator probe (default);
  A11=1 = Condenser probe;
  A11=2 = High pressure switch;
  A11=3 = Evaporator probe and high pressure switch;
- PINS:11-9
  Door switch (or curtain switch)
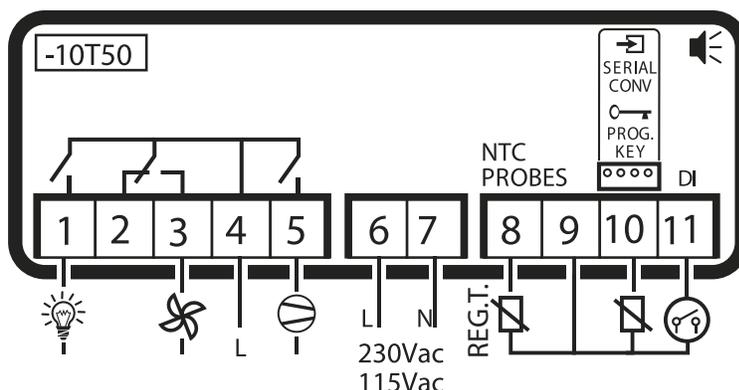
Optional accessories
serial conv.	IROPZ485S0
prog. key	IROPZKEY*

-10T50

NTC PROBES SERIAL CONV PROG. KEY DI

1 2 3 4 5 6 7 8 9 10 11

L L N REG.T.
230Vac 115Vac

Alarms table

Alarm code	Buzzer	Alarm LED	Description	Reset
E0	active	ON	Regulation probe error	automatic
E1	inactive	ON	Second probe error	automatic
E2	inactive	ON	Door switch fault	automatic
E3	inactive	ON	Mitigation algorith: when enabled, if regulation temperature > /b and increasing	automatic
dOr	active	ON	Open door alarm	automatic
LO	active	ON	Low temperature alarm	automatic
HI	active	ON	High temperature alarm	automatic
EE	inactive	ON	Internal parameters error	not possible
EF	inactive	ON	Operating parameters error	manual
dF	inactive	OFF	Defrost is on going	automatic
cht	inactive	ON	CO2 Condenser High Temperature: pre-alarm status	Automatic
CHt	active	ON	CO2 Condenser High Temperature: alarm status.	Manual(A14 =0) Automatic(A14 >0)
Err	active	ON	Refrigerant System Failure Alarm: alarm status	automatic
ECO	inactive	OFF	ECO mode is on going	automatic
CCP	active	ON	Cold Climate Protection mode is on going	automatic
hPr	active	ON	CO2 High pressure alarm: pre-alarm status	automatic
HPr	active	ON	CO2 High pressure alarm: alarm status	manual

Knowing Wellington SCS Control ❄ **Metalfrio** | *Solutions*

Display indicators

1. Day / Night Mode
2. 3-Digit Display LED
3. Back Button - Abort
4. Up Button
5. Bluetooth Indicator
6. Defrost Button / Enter
7. Down Button
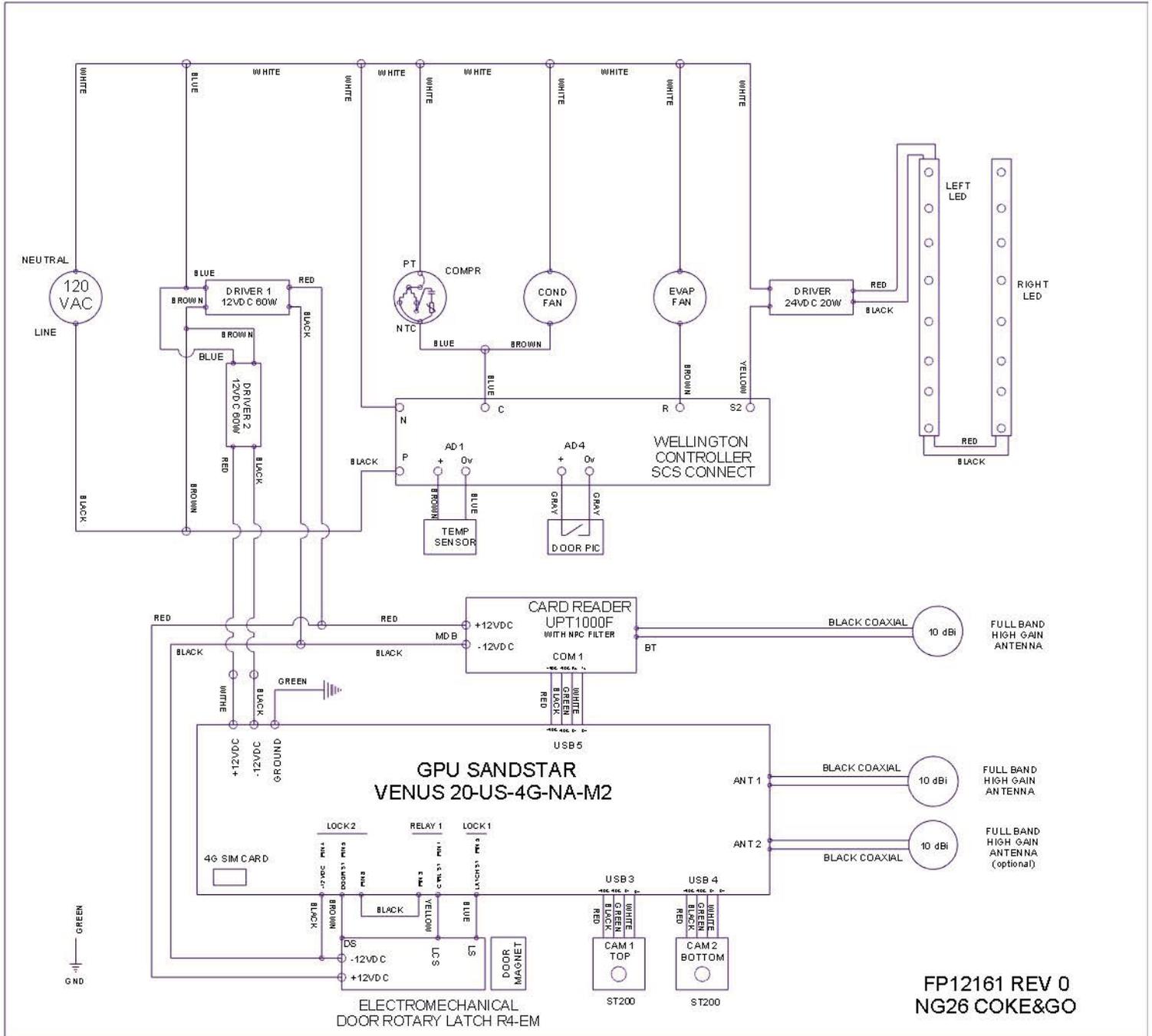8. Alarm
9. Compressor
10. Defrost Mode
11. Fan

Always provide a fault code when reporting an alarm to ensure accurate diagnostics. Prompt reporting of alarms helps minimize refrigerator downtime

Code	Meaning	Possible causes
dor	Door Open	The door is open or the door sensor is out of adjustment.
15	Excessive condenser heating	Check that no objects blocked the condenser, for example boxes or some other device. Restore power, if fault continues, check condenser fan operation.
17	Main sensor or condenser sensor failure.	The temperature sensor needs to be replaced. The system will not work while the fault is present.
19	Refrigeration failure The compressor works for the specified time without reaching the set temperature.	Multiple possibilities that prevent the system from reaching its temperature. The fault will not be removed by restarting the refrigerator, you will need to consult a specialized technical service
20	Low return air temperature. The temperature dropped below the set point	The set temperature keeps getting colder even when the compressor is off. Check compressor connections and check that the compressor status parameter is correct. It can also stem from secondary failure of the compressor itself
21	Excessive compressor starts ** The compressor has had repeated overtemperature readings for similar periods of time.	The condenser sensor is reading high temperature. Check that the condenser is not blocked and that there is good air circulation, with the fan on.
22	Triac S1 Overcurrent	A high current component such as the compressor has been incorrectly connected to output S1. Check the wiring.
23	Triac S2 Overcurrent	
27	Other temperature sensor faults **	The sensor needs to be replaced. The system will continue working ignoring the error.
28	No blocking due to low temperature trend **	Multiple possibilities that make the system reach the desired temperature. The most common causes are: ice blocked evaporator, low refrigerant or low evaporator fan speed.
	** Firmware 1580 or UP	

REFRIGERATION CONTROL

Temperature Control Method	Air or evaporator
Temperature Control Range	-40°C to +70°C (-40°F to +158°F)
Temperature Time Delay	1 - 255 s
Defrost Control	Timed, Active or Manual (via a display)
Advanced Defrost Mode	Pre and Post Defrost, Emergency Defrost
Energy Saving	Temperature Set-back, Fan Cycling, Lights OFF
Input Type	Temperature Sensor & Door Switch
Temperature Probe Type	100 KΩ NTC (β25/85: 4060 k)
Output Control	Compressor, Lights, Evaporator Fan, Reverse Fan or Heater (if fitted with 10 A relay)
Number of Relay	16A + 2 x 5A (Option 16A + 5A + 10A)
Compressor Relay	16A, 250 V
Relay #2	Fan: 5 A, 250 V
Relay #3	Light: 5 A, 250 V or Heater: 10 A, 250 V
Maximum Total Current Rating	18A
Intelligent Time Delay	0 - 600 s
Refrigerant Compatibility	CO2 & Hydrocarbon

POWER & VOLTAGE PROTECTION

Nominal Voltage	115 V / 230 V
Operating Voltage Range	85 / 265 V
Withstand Voltage	Up to 450 V
Working Frequency	Auto-sense 45 - 60 Hz
Type of Protection	High / Low, Spike / Surge & Frequency
High / Low Voltage Blind Time	0 - 255 s
Surge Protection	6.5 kA, <10 ns, 160 J
Over Voltage Category	Category II

CELLULAR CONNECTIVITY

Target Region	Global
Antenna	Internal
Type	LTE
Category	Cat-NB1
Frequency Band	850 / 900 / 1800 / 1900 B1, B2, B3, B4, B5, B8, B12, B13, B18, B19, B20, B25, B28, B39

BLUETOOTH CONNECTIVITY

Type/version	BLE 4.1
RF Power Output	-20 dBm to +4 dBm
Frequency	2.4 GHz ISM
Connectivity	Eddystone, iBeacon & connection to the Sollatek Smart Device Application
Bluetooth Standard	IEEE 802.15.1
Memory Size	32 Mb for data/image storing between transmission

WI-FI GEO-LOCATION

Frequency Range	2.4 GHz
Protocol	802.11 b/g/n

ACCELEROMETER

Measurement Direction	3-axis
Measurement Scale	High Sensitivity ±2g

BATTERY

Battery Type	Rechargeable Lithium Polymer
Nominal Voltage	3.7 V
Capacity	700 mAh
Typical Run Time	Approx. 4 months (depending on settransmiss ion frequency)

USER INTERFACE

LEDs	1 x Controller Status ; 1 x Battery Status ; 2 x GSM Status
Display (Optional)	Connects to the FDM4 & FDM5 Display Range

CONNECTOR / INTERFACE

Input Connector	1 pair of 0.11" (2.80 mm) Faston Tabs, 1 triple 0.11" (2.80 mm) Faston Tabs
Output Connector	Up to 5 x 0.25" (6.35 mm) Faston Tabs (depending on model)
External Device Connector	6-way (3x2) Female Connector Block
Data / Programming	Micro USB-B for Programming
Sim Card	Push-Push Micro SIM holder

Electric Diagram

Metalfrio | Solutions

- NEUTRAL / LINE — 120 VAC
- DRIVER 1 12VDC 60W
- DRIVER 2 12VDC 60W
- PT, COMPR, NTC
- COND FAN
- EVAP FAN
- DRIVER 24VDC 20W
- LEFT LED / RIGHT LED
- WELLINGTON CONTROLLER SCS CONNECT (N, C, R, S2, P, AD1 +/0v, AD4 +/0v)
- TEMP SENSOR
- DOOR PIC
- CARD READER UPT1000F WITH NPC FILTER (+12VDC, -12VDC, COM1, BT)
- FULL BAND HIGH GAIN ANTENNA 10 dBi (×3, one optional)
- GPU SANDSTAR VENUS 20-US-4G-NA-M2 (USB5, USB3, USB4, ANT1, ANT2, MDB)
- 4G SIM CARD
- LOCK2, RELAY1, LOCK1
- CAM 1 TOP ST200 / CAM 2 BOTTOM ST200
- ELECTROMECHANICAL DOOR ROTARY LATCH R4-EM (DS, LCS, LS, DOOR MAGNET, -12VDC, +12VDC)
- GND / GREEN

FP12161 REV 0
NG26 COKE&GO

Troubleshooting

Metalfrio | Solutions

Trouble	Possible cause	Procedure
Cooler does not turn on.	Electrical Power Failure.	Verify that the electrical outlet has power, connect some other device to make sure it turns on.
	Cooler not connected.	Check that the cooler power cord is properly connected.
	High or low voltage variations. (Some electronic temperature controlled coolers have voltage protections to prevent further damage).	Check the voltage of the installation site, if it is not stable, install an external voltage regulator (not supplied) with the appropriate capacity for your cooler.
	Poor voltage tap.	Change or repair the voltage tap. (Plug your cooler into a separate outlet).
Cooler does not cool.	Excess or poor distribution of the product.	Distribute the products allowing the free flow of air between them. Avoid introducing cardboard or plastic unrelated to the type of refrigerated product.
	High opening frequency of door(s).	Avoid opening the door(s) too far.
	Cooler installed incorrectly.	Observe the item "Installation place".
Noisy.	Cooler not properly leveled on the floor.	Level the cooler correctly on the floor or change the installation location.
	Cooler with the rear part leaning against the wall.	Leave the cooler at least 15 cm from the wall.
	When connecting the cooler after a period of inactivity, it is normal for noise to be produced at the start of operation.	Wait 60 min and recheck the noise. If persists, consult customer service.
Cooler compressor does not pause.	External heat sources affect temperature.	Do not install the cooler near heat sources such as stoves or under direct sunlight.
	Door open.	Verify that the door(s) are closed and that there are no air leaks.
Payment terminal does not turn on.	Electrical power failure.	Verify that the electrical cooler outlet has power, connect any other device to make sure it turns on.
Payment terminal does not release the door	Credit or debit card has an issue with your bank or it has reading problems.	Use a different card. If the failure continues, call Metalfrio service center.

Troubleshooting

Metalfrio | Solutions

Trouble	Possible cause	Procedure
Power LED Off. Payment terminal message: *"Connection issue, cooler not available".*	No power available, power supply malfunction.	1. Confirm the power outlet is functioning properly. 2. Inspect the connections of the power cord and GPU cables. 3. Ensure the Power Supply LED is illuminated. 4. Provide photos of any error messages and the GPU connections to the support team at *support.ar@visiongroupretail.com.*
GPU Internet issue. Payment terminal message: *"Connection issue, cooler not available".*	No network connectivity available / SIM not properly inserted.	1. Verify the SIM card is correctly installed in the GPU. 2. Inspect the antenna connection and ensure it is properly positioned. 3. Confirm that the inserted SIM is a 4G card and that it is activated. 4. If the SIM card is malfunctioning, contact the service provider for troubleshooting. Once resolved, continue with steps 3 and 4 only. 5. Reinsert the SIM card if necessary. 6. Power cycle the GPU. 7. Send pictures to the support team at *support.ar@visiongroupretail.com*
Payment Terminal not set up.	Payment terminal set up not initiated or completed.	Contact Swipe Payment Solutions at *support@swipeps.com.*
Payment Terminal connection/ communica-tion issue.	Payment terminal communicaton cable not connected properly.	1. Ensure that the Serial (RS232) to USB cable is connected to the correct USB port on the GPU. 2. Confirm that the RJ45 cable is properly connected to the UPT. 3. Verify that the DB9 connector (RJ45 to DB9) is securely connected to the DB9 (RS232 to USB) cable. 4. Power cycle both the cooler and the GPU. 5. Send pictures of any error messages and GPU connections to the support team at *support.ar@visiongroupretail.com.*

Troubleshooting

Trouble	Possible cause	Procedure
Door open timeout. Payment terminal message: *"Door Open timeout, please try again".*	No power available, power supply malfunction.	1. Confirm the power outlet is functioning properly. 2. Inspect the connections of the power cord and GPU cables. 3. Ensure the Power Supply LED is illuminated. 4. Provide photos of any error messages and the GPU connections to the support team at *support.ar@visiongroupretail.com.*
Payment terminal message: *"Door Open timeout, please try again".*	The consumer did not open the door within 10 seconds after initiating the purchase process.	1. The initial unsuccessful attempt will not incur any charges, as the transaction was not completed. 2. Start a new purchase attempt.
Payment terminal message: *"Card declined".*	The transaction failed due to an invalid or expired card, or authorization was declined, and the card could not be read.	1. Attempt the transaction using a different card. 2. Capture and send images of the error message to the support team at *support.ar@visiongroupretail.com.* 3. The support team will either resolve the issue remotely or provide repair instructions to the dispatched service provider.
Payment terminal message: *"System issue".*	The GPU does not provide purchase confirmation after the door is closed.	1. Capture and send images of the error message to the support team at *support.ar@visiongroupretail.com.* 2. The support team will provide repair instructions to the dispatched service provider.
Invalid product in basket or incorrect purchase summary.	The camera fails to correctly identify the selected product due to the following reasons: 1. Camera issues (e.g., obstruction, malfunction). 2. Environmental factors that interfere with lighting and camera detection.	1. Check for camera obstructions or cooler condensation. 2. Verify if the cooler LED is functioning correctly. 3. Ensure the cooler's outer environment has adequate lighting. 4. Send a message to the support team at *support.ar@visiongroupretail.com.* 5. The support team will provide repair instructions to the dispatched service provider.

Warranty

To validate your warranty in the event of any damage, the buyer or end user must provide the following information:

1. Model
2. Serial Number
3. Copy of the Invoice
4. Purchase Date
5. Description of the Fault

Warranty Service:
The warranty service will be provided by the network of authorized Metalfrio service centers. If it is necessary to transfer the refrigerator to our plant, it must be approved in writing by the commercial area. The refrigerator must be shipped in the original packaging to avoid further damage and delivered to the carrier.

Warranty Coverage:
Metalfrio Solutions México SA de CV grants a warranty policy with each new refrigerator, indicating the warranty period and the conditions it covers. For more details, please check with our service staff at **+52 1 800 006 4380.**

The Warranty Does Not Apply in the Following Cases:

A) The warranty is limited to the repair of the refrigerator, including the replacement of defective parts. The refrigerator will not be replaced during the repair time, which will not exceed 30 business days. This excludes products requiring the manufacture of special pieces.

B) The warranty does not cover damages due to handling during transfers, installation in non-standard facilities, overload, voltage variations, or misuse of the refrigerator.

C) The purchaser or end user must follow the installation and operating instructions. The premises where the refrigerators are used must comply with the recommended electrical installation requirements. Failure to do so will void the warranty.

D) The warranty does not cover damage caused by accidents such as fires, floods, earthquakes, or other natural events unrelated to the refrigerator's operation.

Cooling System loaded with ecological **R290 refrigerant.**
To be attended by qualified personnel only.