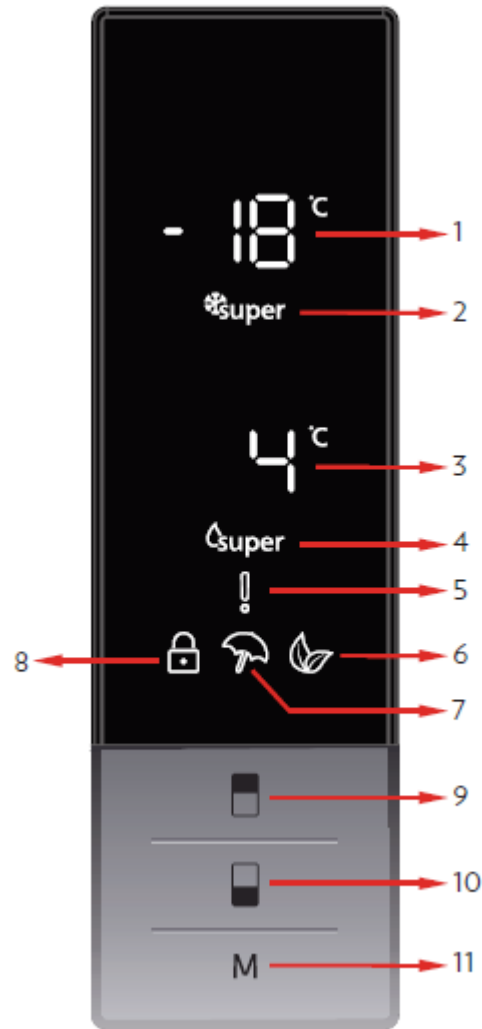


VESTEL WHITE GOODS	NO-FROST 473 ELECTRONIC	CUSTOMER SUPPORT
	Control Panel	



1. It is freezer set value screen.
2. It is super freeze indicator.
3. It is cooler set value screen.
4. It is super cooling indicator.
5. It is alarm symbol.
6. It is economy mode symbol.
7. It is holiday mode symbol.
8. It is child-lock symbol.
9. It enables the setting value of cooler to be modified and super freeze mode to be activated if desired. Freezer maybe set to -16, -18, -20, -22, -24°C super freeze.
10. It enables the setting value of freezer to be modified and super cool mode to be activated if desired. Cooler may be set to 8, 6, 5, 4, 2 °C super cool.
11. It enables the modes (economy, holiday...) to be activated if desired.

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Super freeze mode



- How would it be used?**
- Press freezer set button until Super freeze symbol will be seen on the screen. Buzzer will sound beep beep. Mode will be set.
- During this mode:**
- Temperature of cooler and super cool mode may be adjusted. In this case super freeze mode continues.
 - Economy and Holiday mode can not be selected.
 - Super freeze mode can be cancelled by the same operation of selecting.

Super cool mode



- How would it be used?**
- Press cooler set button until Super cool symbol will be seen on the screen. Buzzer will sound beep beep. Mode will be set.
- During this mode:**
- Temperature of freezer and super freeze mode may be adjusted. In this case super cool mode continues.
 - Economy and Holiday mode can not be selected.
 - Super cool mode can be cancelled by the same operation of selecting.

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Economy Mode



How would it be used?

- Push "mode button" until eco symbol appears.
- If no button is pressed for 1 second. Mode will be set. Eco symbol will blink 3 times. When mode is set, buzzer will sound beep beep.
- Freezer and refrigerator temperature segments will show "E".
- Economy symbol and E will light till mode finishes.

During this mode:

- Freezer may be adjusted. When economy mode will be cancelled, the selected setting values will proceed.
- Cooler may be adjusted. When economy mode will be cancelled, the selected setting values will proceed.
- Super cool and super freeze modes can be selected. Economy mode is automatically cancelled and the selected mode is activated.
- Holiday mode can be selected after cancelling the economy mode. Then the selected mode is activated.
- To cancel, you will just need to press on mode button.

Holiday Mode



How would it be used?

- Push "mode button" until holiday symbol appears
- If no button is pressed for 1 second. Mode will be set. Holiday symbol will blink 3 times. When mode is set, buzzer will sound beep beep.
- Cooler temperature segment will show "--".
- Holiday symbol and "--" will light till mode finishes.

During this mode:

- Freezer may be adjusted. When holiday mode will be cancelled , the selected setting values will proceed.
- Cooler may be adjusted. When holiday mode will be cancelled, the selected setting values will proceed.
- Super cool and super freeze modes can be selected. Holiday mode is automatically cancelled and the selected mode is activated.
- Economy mode can be selected after cancelling the holiday mode. Then the selected mode is activated.
- To cancel, you will just need to press on mode button.

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Drink Cool Mode



- When would it be used?**

This mode is used to cool the drinks within adjustable time.
- How would it be used?**
 - Press freezer button for 3 seconds.
 - Special animation will start on freezer set value screen and 05 will blink on cooler set value screen.
 - Press cooler button to adjust the time (05 - 10 - 15 - 20 - 25 - 30 minutes).
 - When you select the time the numbers will blink 3 times on screen and sound beep beep.
 - If no button is pressed within 2 seconds the time will be set.
 - The countdown starts from the adjusted time minute by minute.
 - Remaining time will blink on the screen.
 - To cancel this mode press freezer set button for 3 seconds.

Screen Saver Mode



- How to use?**
 - This mode will be activated when you press on mode button for 5 seconds.
 - If no button is pressed within 5 seconds when he mode is active, lights of the control panel will go off.
 - If you press any button when lights of control panel are off, the current settings will appear on the screen, and then you can maket he adjustment as you want. If you neither cancel screen saver mode nor press on any button in 5 seconds, the control panel will go off again.
 - To cancel screen saver mode press on mode button for 5 seconds again.
 - When screen saver mode is active you can also activate child lock.
- If no button is pressed within 5 seconds after child lock is activated, the lights of the control panel will turn off. You can see latest status of settings or modes after you pres any button. While control panel ‘s light is on, you can cancel child lock as described in the instruction of this mode.

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Child Lock



When would it be used?
To prevent children from playing with the buttons and changing the settings you have made, child lock is available in the appliance.

Activating Child Lock
Press on Freezer and Cooler buttons simultaneously for 5 seconds.

Deactivating Child Lock
Press on Freezer and Cooler buttons simultaneously for 5 seconds.

Demo Mode

- Entering Demo mode:**
- Firstly the power is on , secondly within 1 minute user will push mode & freezer button at the same time , Then appliance will go on “demo function” and Demo Symbol will light during the mode.
 - All functions can be adjusted to show how they are adjusted to the customer.
 - During the demo mode to show the alarm symbol , at the 3th. pushing of the mode button SR alarm symbol and the “SR word” on the 7-segment will be active.

Canceling Demo mode:
For cancelling; Same operation will be used. If user will push mode & freezer button at the same time, demo function will be cancelled.
When appliance is Demo mode; if plug is removed or there is an electricty breakdown; demo mode will continue with current settings after user plug into or electricity breakdown finish.

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Freezer temperature settings



- Initial temperature value for Freezer Setting Indicator is -18°C.
- Press freezer set button once.
- When you first push this button, the last set value will blink on screen.
- Whenever you press on this button, lower temperature will be set (-16°C, -18°C, -20°C, -22°C, -24°C super freeze).
- When you push the freezer set button until super freeze symbol appears, and if you do not push any button in 1 seconds Super Freeze will flash.
- If you continue to press, it will restart from -16°C.
- The temperature value selected before Holiday Mode,

Cooler temperature settings



- Initial temperature value for Cooler Setting Indicator is +4 °C.
- Press cooler button once.
- When you first push this button, the last value appears on the setting indicator of the cooler.
- Whenever you press on this button, lower temperature will be set. (+8°C, +6°C, +5°C, +4°C, +2°C, supercool)
- When you push the cooler set button until supercool symbol appears, and if you do not push any button in 1 seconds Super Cool will flash.
- If you continue to press, it will restart from +8°C.
- The temperature value selected before Holiday Mode, Super Freeze Mode, Super Cool Mode or Economy Mode is activated will remain the same when the mode is over or cancelled. The appliance continues to operate with this temperature value.

VESTEL WHITE GOODS	NO-FROST 473 ELECTRONIC	CUSTOMER SUPPORT
	Used Component	

• Fin Evaporator Resistance	230V/150W
• Evaporating Tray Resistance	230V/32W (Drain Heater)
• Thermal Fuse	76 °C
• Cooler Defrost Resistance	230V/10W
• Cooler Fan Motor	DC 12V
• Evaporator Fan Motor	AC 230 V 50 Hz
• Cabin Bottom Fan Motor	AC 220 - 240 V 50 Hz
• Mainboard (Power Card	VESTEL ELECTRONIC
• Display Card	VESTEL ELECTRONIC
• Freezer Defrost Sensor	EPCOS - VISHAY
• Cooler Defrost Sensor	EPCOS (it is not possible to change in the body)
• Cooler Sensor	EPCOS - VISHAY
• LED Illumination	3.9W
• Transformer	On the mainboard

Resistance Values According To The Temperature Sensor (°C/Ohm Rates) (For The Freezer Defrost and The Cooler Ambient Sensor)

45 °C/1kΩ	-1 °C/6.2kΩ
35 °C/1.5kΩ	-3 °C/6.8kΩ
30 °C/1.8kΩ	-5 °C/7.5kΩ
25 °C/2.2kΩ	-7 °C/8.2kΩ
19 °C/2.7kΩ	-12 °C/10kΩ
14 °C/3.3kΩ	-15 °C/12kΩ
10 °C/3.9kΩ	-20 °C/15kΩ
5.5 °C/4.7kΩ	-24 °C/18kΩ
1.5 °C/5.6kΩ	-31.5 °C/27kΩ
0 °C/6kΩ	-35.5 °C/33kΩ

Sensor Resistance Values According To The Temperature (°C/Ohm Rates) (For The Cooler Defrost Sensor)

45 °C/2.15kΩ	-1 °C/17.1kΩ
35 °C/3.26kΩ	-3 °C/19kΩ
30 °C/4.02kΩ	-
5 °C/21.1kΩ	
25 °C/5kΩ	-7 °C/23.5kΩ
19 °C/6.53kΩ	-12 °C/30.8kΩ
14 °C/8.23kΩ	-15 °C/36.5kΩ
10 °C/9.95kΩ	-20 °C/48.6kΩ
5.5 °C/12.3kΩ	-24 °C/61.5kΩ
1.5 °C/15kΩ	-31.5 °C/98kΩ
0 °C/16.3kΩ	-35.5 °C/12.6kΩ

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NTC Sensor

There are three types of sensors. They are cooler, freezer defrost, cooler defrost sensors. Cooler and freezer defrost sensors have the same features but their cable length is different. The resistance values of all sensors decrease when the temperature values of the sensors increase. For example, the resistance value that is 33 kΩ in the -35.5 °C goes down to 1kΩ in the 45 °C and therefore the ambient temperature should be considered while the sensor is being checked. If the ambient temperature is 25 °C, the measuring device shows about 2.2kΩ (if ntc sensor is steady).

When the refrigerator works on first time;

If the cooler compartment defrost sensor and the freezer compartment defrost sensor are hotter than -5°C, the test system works automatically. These below components are tested automatically every 5 seconds.

If the appliance does not start the automatic control process, please wait 10 minutes. After that, if it starts there are two options either open sensor or short circuit situation.

- ❖The compressor starts and stops after 5 seconds.
- ❖The defrost resistance starts and stops after 5 seconds.
- ❖The cooler defrost resistance starts and stops after 5 seconds.
- ❖The DC Radial Fan starts and stops after 5 seconds.

After these steps, the system waits 5 minutes and then it will switch normal mod.

Freezer Defrost Program

- According to the conditions of usage, the defrost might be activated after the min compressor running time; 8 hours or max total time; 55 hours. Below matters are also effected;
- Consisted ice amount,
- Door open-close,
- Sudden usage variance,
- Cooler sudden temperature rise,

Cooler Defrost Program

The cooler defrost and the freezer defrost are operated parallel except those below.

If the cooler defrost sensor does not feel 5°C three times during a particular period of time.

- Defrost will be activated after the refrigerator works max 9 hours. According to the conditions of usage, the defrost might be activated (due to mentioned those below) after the compressor works min 5 hours.
- Consisted ice amount,
- Door open-close,
- Sudden usage variance,
- Cooler sudden temperature rise,

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Freezer Defrosting Time

The Defrost is disabled when the defrost sensor temperature feels 8°C. If defrost time passes 37 minutes, defrost completing temperature will be rise to 15°C.

Cooler Defrosting Time

The cooler defrost and the freezer defrost are operated parallel except those below. The cooler defrost will not work if the freezer defrost stops.

The defrost process stops when the defrost sensor temperature feels 7°C. At the low ambient temperature or when the compressor stops; to balance, defrost stops when the defrost sensor temperature feels 15°C. But if the defrost time or the compressor stopping time goes over 6 hours, the resistance will be stopped.

Compressor delay: First, the defrost process ends, the system waits 5 minutes, just after that the compressor is active.

In Case of Power Cut

- All regulated parameters and functions are kept in memory when the power cut.
- When the electricity comes, if the defrost sensor temperature is lower than -5 °C the compressor works 5 minutes later. If it is higher than -5 °C.

Other Features

Warnings : The door open warning is active 2 minutes later and it alarms.

Door Direction : It is possible to reverse the door.

Gasket : It is possible to change the gasket.

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	Probable Faults	

Unsufficient cooling	Is the appliance too close to wall or heat sources (stove, central heating, oven, cooker etc.)?	It should be placed min 50cm distance from heat sources and min 5 cm from electrical ovens.
	Is the ambient temperature high?	Raise the thermostat value.
	Check whether putting the hot foods in the refrigerator?	Put the foods after get cold.
	Is there any gas leakage in refrigerant system?	Check all welding points in the system.
The foods in the cooler compartment are freezing.	Were the foods placed close to cooling air outlet?	Please do not block air outlets
	Is the cooler thermostat value high ? Is there any hot foods close to the cooler sensor?	Decrease the cooler thermostat value and do not put hot things close to the sensor.
Are there any sweating or icing?	Were the liquid foods in the closed containers?	Put the liquid foods into the closed containers.
	Were the hot foods put into the refrigerator?	Put it into after getting cold.
	Was the refrigerator door opened?	Do not leave the refrigerator door open and do not often open or close.
Abnormal Noise	Is the appliance on the flat surface?	The floor should be straight and balance the refrigerator with the help of the adjustable feet.
	Is the compressor feet loose	Fix it.
	Is the condenser or fan stationary normal?	Fix it.
	Do the capillary tube or all other tubes touch any where?	Fix it.

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	Service Mode	

Entering service mode :

Push freezer temperature button continuously. During this time, open and close the cooler door for least 3 times. The appliance will enter service mode 3 sec. late.

- If there is a faulty situation, error code will be observed on screen. Otherwise nothing will be on the screen.
- Buzzer will sound beep for 0.1 sec. each 5 sec. during service mode.
- Child lock icon will blink
- Service function could be activated by pushing «Mode» button

SERVICE FUNCTION	
	While display is on service mode, it could be changed among service functions by touching mode icon
TOUCHING M (MODE) BUTTON ONE TIME.	STARTING MODE
	Eco icon blinks
	The number of components which is controlled is shown as 7 segment on display.
	Icon goes off when the starting test finishes and then display returns to service mode.
TOUCHING M (MODE) BUTTON TWO TIMES.	MANUAL DEFROST
	Holiday icon blinks
	Defrost mode is started after third step.
	Defrost might be finished manually or automatically.
	Defrost might be finished manually by using the cooling set button. Icon goes off and display returns to service mode.
TOUCHING M (MODE) BUTTON THREE TIMES.	DAMPER MOTOR CONTROL MODE
	SC icons blink.
	There is no function due to not having damper component in the product
	Unless touch anything on the screen for 5 minutes , this function will be finished.
	SC icons blink and service mode will go back normal function.
TOUCHING M (MODE) BUTTON FOUR TIMES.	CURRENT TEMPERATURE VALUES INDICATOR
	Sf icons blink.
	Current temp. Value of freezer set sensor is shown on cooler set segment. Freezer set segment is "1"
	If touch freezer set icon, current temp. Value of cooler sensor is shown.
	Current temp. Value of cooler sensor is shown on freezer set segment. Freezer set segment is "2"
	If touch freezer set icon, defrost sensor current temp. Value is shown on screen.
	Current temperature value of defrost sensor is shown on cooler set segment. Freezer set segment is "3"
	If touch freezer set icon, current temperature value of ambient sensor is shown
	Constant value is shown on cooler set segment due to not being ambient sensor in the appliance. Freezer set segment is "4"
	If touch freezer set icon, current temperature value of serpentine sensor is shown
	Current temperature value of serpentine sensor is shown on cooler set segment. Freezer set segment is "5"
	Unless touch freezer set icon for 5 minutes , function will be finished automatically.
	If touch cooler set icon, function will be finished manually.
	Sf icon goes off and display returns to service mode.
TOUCHING M (MODE) BUTTON FIVE TIMES.	DOOR SWITCH CONTROL
	No icons are there
	Cooler set segment gives information about cooler door
	Freezer set segment gives information about freezer door
	Mode just could be deactivated by cooler set button.

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	User and Service Mode Error Message	

SENSOR	TEMPERATURE	USER MODE REACTION	SERVICE MODE REACTION
(1) Freezer	> +50 °C or <-50 °C (sensor is short or open)	Display SR (blinks) in Freezer number segment & SR Symbol blinks & Buzzer ‘beep’	Display FE 01
(2) Refrigerator			Display FE 02
(3) Defrost			Display FE 03
(5) Serpentine sensor			Display FE 04
Breakdown of (1) and (2)			Display FF 12
Breakdown of (1) and (3)			Display FF 13
Breakdown of (1) and (5)			Display FF 15
Breakdown of (2) and (3)			Display FF 23
Breakdown of (2) and (5)			Display FF 25
Breakdown of (3) and (5)			Display FF 35
Breakdown of (2) and (3) and (5)			Display FH 06
Breakdown of (1) and (3) and (5)			Display FH 02
Breakdown of (1) and (2) and (5)			Display FH 05
Breakdown of (1) and (2) and (3)			Display FH 04
Breakdown of all sensors			Display FU 00

Component defect on display

DEFECT TYPE	DETAILS	USER MODE REACTION	SERVICE MODE REACTION
Compressor Defect	Defrost sensor temp > -10°C (D sensor temp.unchanges for 10 min.continuous compressor run)	Display SR (blinks) in Freezer number segment & SR Symbol blinks & Buzzer ‘beep’	Display FO 05
Defrost Heater Defect	Defrost sensor < 0°C		Display FO 06

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	User and Service Mode Error Message	

Low voltage error on display

DEFECT TYPE	DETAILS	USER MODE REACTION	SERVICE MODE REACTION
Low voltage	Power supply < 170	Freezer and refrigerator number segment shows ' _ ' & Buzzer 'beep'	Freezer and refrigerator number segment shows ' _ '

Cooling error on display

Note: To prevent the wrong alarms, this alarm status is disabled on following conditions:

- During the first 6 hours after the product was firstly connected.
- During the defrost period
- During the first two hours after a defrost
- During the first 2 hours that one of the doors was open.

DEFECT TYPE	DETAILS	USER MODE REACTION	SERVICE MODE REACTION
Freezer sensor > -10°C	Freezer compartment is not cool enough	Freezer number segment and alarm icon blink	Display CO 01
Ref. sensor > +10°C and if Holiday mode is not active	Refrigerator compartment is warm	Refrigerator number segment and alarm icon blink	Display CO 02
Ref. sensor < -5°C	Refrigerator compartment is so cool	Refrigerator number segment and alarm icon blink	Display CO 03
F sensor > -10°C and R sensor >15°C and if Holiday mode is not active	Freezer and Refrigerator compartment both are not cool enough	Freezer and Refrigerator number segment and alarm icon blink	Display CO 04