
VATNA 200 - 300 - 400**DRIVER'S MANUAL**

TABLE OF CONTENTS

1. INTRODUCTION	2
2. IDENTIFICATION & NOISE LEVEL	2
2.1. Nameplate	2
2.2. Noise Level Charts	2
3. SAFETY	2
3.1. Warning and precaution	2
3.2. Risks	2
3.3. Warning Stickers Maintenance	2
4. OPERATION	2
4.1. Control box description	2
4.2. Start the unit on standby	3
4.3. Stop the unit	3
4.4. Defrost the unit	3
5. Maintenance Schedule	4
6. RECOMMENDATIONS	4
6.1. Before loading	4
6.2. When loading	4
7. RECOMMENDED TRANSPORT TEMPERATURES	4
8. A.T.P. EUROPE REGULATION EXTRACT	5
9. 24H ASSISTANCE	5



1. INTRODUCTION

This guide has been prepared for the operator of Carrier Transicold refrigeration units. It contains basic instructions for the daily operation of the refrigeration unit as well as safety information, troubleshooting tips, and other information that will help you to deliver the load in the best possible condition.

Please take the time to read the information contained in this booklet and refer to it whenever you have a question about the operation of your Carrier Transicold unit. This manual refers to the standard model. Some options may not appear in it, and in such cases you are requested to consult our Technical Services.

Your refrigeration unit has been engineered to provide long, trouble-free performance when it is properly operated and maintained. The checks outlined in this guide will help to minimize on the road problems. In addition, a comprehensive maintenance program will help to insure that the unit continues to operate reliably. Such a maintenance program will also help to control operating costs, increase the unit's working life, and improve performance.

When having your unit serviced, be sure to specify genuine Carrier Transicold replacement parts for the highest quality and best reliability.

At Carrier Transicold, we are continually working to improve the products that we build for our customers. As a result, specifications may change without notice.

2. IDENTIFICATION & NOISE LEVEL



Keep the fold out sheet while reading the instructions.

2.1. NAMEPLATE

Each unit is identified by a nameplate (A) attached to the frame of the unit. The nameplate identifies the complete model number of the unit, the Serial Number (B) and some other information.



If a problem occurs, please refer to the information on this plate, and make a note of the model and Serial Number (B) before calling for assistance.

This information will be needed when you contact a technician so that he may properly assist you.



The sticker (C) indicates the noise level in Lwa (sound power level).

2.2. NOISE LEVEL CHARTS

Unit	Maximum Sound Power level L _{WA} (dB)
VATNA 200/300/400	54

3. SAFETY

3.1. WARNING AND PRECAUTION



This manual contains safety and service instructions to follow in order to prevent any accident. Some of following stickers have been placed on the product for your SAFETY.



- **NEVER** manipulate cab command when driving.
- **NEVER** intervene on the unit, for any service or maintenance operation, contact your Carrier service centre.
- **NEVER** remove safety elements (grill, skin, metal sheet). If damaged, contact your Service Center for replacement.

3.2. RISKS



Contact your medical assistance in case of accident.

GENERAL RISKS	
	Burning with hot and cold test.
	Cuttings.
	Noise level.
	Exhaust gas: - DO NOT use the unit in a closed space.
	Asphyxiation: - Leave the doors open when working inside the body.
	Risk of slipping going up in the body: - Ice on the floor.
	Risk of slipping going out of the body: - Leak of refrigerant.
	Electrical risks – when connecting and disconnecting standby plug.

3.3. WARNING STICKERS MAINTENANCE

1. Keep the warning pictograms clean and without any obstruction material.
2. Clean the pictograms with water and soap and wipe them with soft fabric.
3. Replace damaged or missing pictograms with new pictograms available in Carrier network.
4. If a component having a pictogram is replaced by a new one, be sure that the new component has the right pictogram.
5. Place a warning pictogram by applying it on a dry surface. Press to external sides to eliminate air bubbles.

4. OPERATION

4.1. CONTROL BOX DESCRIPTION

Operation of these units is automatic.

During temperature pull-down and plate freezing, the unit operates uninterrupted.

When the eutectic solution is frozen, the unit shuts down and goes into pressure-control mode (low pressure).



The minimum operation time for accumulation must be in the region of 9 hours. This time should be increased after defrosting to about 17 hours.



1. Standby operation LED (green).
2. ON/OFF switch.
3. Rearm button.

Used if overload relay opened.

4. Power plug connection.

To connect power supply network .

4.2. START THE UNIT ON STANDBY



BEFORE STARTING

- On the power network : check that the type of current corresponds to the characteristics of the unit.



1. Ensure that the ON/OFF switch is switched OFF position
2. Connect the power network plug to the control box



1. Switch the ON/OFF switch to "ON" position.

The "STANDBY OPERATION" LED is highlighted.



2. Check indicating flag located on front grid for proper motor rotation

Condenser air flow must be drawn into unit.



If the condenser air drawn out the unit :

- Switch "0" position the "ON/OFF" switch.
- Disconnect the power plug.
- Reverse the red part by using a screw driver



In the event of difficulty on start-up, check that

- Network supply is Ok.
- Overload relay is not open by pushing the red 'REARM' button.

4.2.1. STANDBY GUIDELINE

Unit	Fuse 220/3/ 50Hz	Fuse 400/3/50Hz	Standardized extension cable H.07.RNF mm ²	
			220 volts	400 volts
VATNA 200	15 A	12 A	4 x 2,5 mm ²	4 x 2,5 mm ²
VATNA 300	20 A	15 A	4 x 4 mm ²	4 x 2,5 mm ²
VATNA 400	25 A	20 A	4 x 4 mm ²	4 x 4 mm ²

4.3. STOP THE UNIT



1. Stop the unit by putting the ON/OFF switch to "OFF" position.

4.4. DEFROST THE UNIT



- In order to obtain the best results from this refrigeration unit in door-to-door distribution conditions: **it is absolutely necessary to defrost the eutectic plates regularly.**
- Any excess of frosting on the plates lowers the efficiency of the eutectic system.



Do not used water to defrost the eutectic plates.



Too much accumulation of frost on the plates can be avoided by brushing them down.



Evacuate water that may accumulate on the ground before restart the unit to avoid a frozen floor.



Figure 1. Example of frosting eutectic plate



1. Stop the unit.
2. Open the cooling box doors.

The plates will defrost naturally.



The defrosting time depends on the frosting and also the ambient temperature: **keep the cooling box doors opened from 3 to 12 hours according to the conditions.**

5. MAINTENANCE SCHEDULE

Service Type Period or hours interval	VATNA 200/300/400 Service frequency	
	12 month	24 months
Service A	X	X
Service B		X

6. RECOMMENDATIONS



This unit is not designed to carry special loads which emit corrosive gas.

These kind of products can impact unit performance, and seriously reduce component life time.

Please contact us if such products need to be carried.

- Perform a defrost of the eutectic plates at least once a week to ensure an optimal efficiency of the eutectic system



Any excess of frosting lowers the efficiency of the eutectic system.

- It is important to check the temperature of the product being loaded to ensure that it is at the correct temperature for transport. The refrigeration unit is designed to maintain the temperature of the product at the temperature at which it was loaded; it was not designed to cool a warm product.

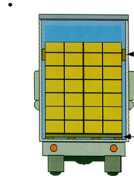
6.1. BEFORE LOADING

- Check the condition of the inside and outside of the insulated body, as well as the door seals.
- Your vehicle should always be clean and well-aired.

6.2. WHEN LOADING

- To be carried out with the unit stopped.
- It is recommended to open doors as little as possible to avoid the intake of hot air and humidity.

- Select the temperature by means of the thermostat, according to the transported goods.
- Check the internal temperature of the goods being loaded (using a probe thermometer).



- Leave a free space of about 6 to 8 cm between load and front wall.
- Leave a free space of about 20 cm between the top of the load and the roof.
- Load product on pallets (gratings) to provide free air return to unit and improvement product protection.
- Do not forget to close the doors.
- Before closing the doors, check your load once more and see that nobody is shut inside the box.



For stationary utilisation, we recommend to place the box in the shade.



Never leave your unit more than a month without running.



Open the cooling box doors in case of extended stop.

7. RECOMMENDED TRANSPORT TEMPERATURES

Below are some general recommendations on product transport temperatures and operating modes for the unit. These are included for reference only and should not be considered pre-emptive of the Set-point required by the shipper or receiver. More detailed information can be obtained from your Carrier Transicold dealer.

PRODUCT	Temperature inside the cooling box*
Ice	-20°C (-4°F)
Frozen fruits and vegetables	-18°C (-0°F)
Frozen meats and seafood	-20°C (-4°F)
Ice cream	-25°C (-13°F)

* Given by the Thermometer that indicates the temperature inside the cooling box.



During delivery cycles that includes frequent stops and door openings, it is recommended that the unit always be operated in the continuous run mode to help insure product quality.

It is essential to shutdown the compartment during the periods when the doors are open, in order to maintain the temperature of the cargo in the other compartments and keep the unit operating correctly.



8. A.T.P. EUROPE REGULATION EXTRACT

Approval of vehicles intended for the carriage of perishable goods.

Before putting a refrigerated vehicle into service, it is necessary to have it approved by the Regional Health Department.

Characteristics of vehicles used for carrying perishable goods; refrigeration unit.

The refrigeration unit is an insulated unit with a cooling system which makes it possible, with a mean outside temperature of +30°C, to lower the temperature inside the empty body and to maintain this low temperature in the following way:

Class A: Refrigeration unit furnished with a cooling system whereby a temperature between +12°C and 0°C inclusive can be chosen.

Class B: Refrigeration unit furnished with a cooling system whereby a temperature between +12°C and -10°C inclusive can be chosen.

Class C: Refrigeration unit furnished with a cooling system whereby a temperature between +12°C and -20°C inclusive can be chosen.

The cooling capacity of a unit is determined by a test carried out in one of the approved testing stations and ratified by an official report.



The "K" factor of bodies intended to be classified as C must be equal to or lower than 0.4 W/m² °C.

Signs, identification marks and plates to be attached to refrigeration units.

Distinguishing plate:

- Standard refrigeration unit Class A → FNA
- Reinforced refrigeration unit Class A → FRA
- Reinforced refrigeration unit Class B → FRB
- Reinforced refrigeration unit Class C → FRC

In addition to the above identification marks, the date (month and year) of expiry of the approval certificate must be indicated.

Refrigeration plate example:



(11 = month (November) 2023 = year)



Regularly check the expiry date of the approval certificate. During transport, the approval certificate or provisional certificate should be shown on request of qualified agents. To have an insulated unit approved as a refrigeration unit, an application to request the approval certificate should be sent to the regional health office.

9. 24H ASSISTANCE

At Carrier Transicold we're working hard to give you complete service when and where you need it. That implies a worldwide network of dealers and available an emergency service. These service centres are manned by factory-trained service personnel and backed by extensive parts inventories that will assure you of prompt repair.

Should you encounter a unit problem with your refrigeration unit during transit, follow your company's emergency procedure or contact the nearest Carrier Transicold service centre. Consult the directory to locate the service centre nearest you. This directory may be obtained from your Carrier Transicold dealer.

If you are unable to reach a service center, call Carrier Transicold's 24Hour Assistance: **ONE CALL**.

In Europe, please use the following free phone numbers from:

AT	AUSTRIA	0800 291039
BE	BELGIUM	0800 99310
CH	SWITZERLAND	0800 838839
DE	GERMANY	0800 1808180
DK	DENMARK	808 81832
ES	SPAIN	900 993213
FR	FRANCE	0800 913148
FI	FINLAND	0800113221
GB	GREAT BRITAIN	0800 9179067
GR	GREECE	00800 3222523
HU	HUNGARY	06800 13526
IT	ITALY	800 791033
IE	IRELAND	1800 553286
LU	LUXEMBURG	800 23581
RU	RUSSIA	810 800 200 31032
NO	NORWAY	800 11435
NL	THE NETHERLANDS	0800 0224894
PT	PORTUGAL	8008 32283
PL	POLAND	00800 3211238
SE	SWEDEN	020 790470

From other countries / Direct: +32 11 8791 00

In Canada or United States, call: 1 – 800 – 448 1661

When calling, **please have the following information ready for fastest service:**

- Your name, the name of your company, and your location.
- A telephone number where you can be called back.
- Refrigeration unit model and serial number.
- Box temperature, Set-point and product.
- Brief description for the problem you are having and what you have already done to correct the problem.

We will do everything we can to get your problem taken care of and get you back on the road.

