

PRODUCT INFO

9. COOLAIR RTX 1000/RTX 2000 PARKING COOLERS FOR TRUCKS

CoolAir compressor parking coolers have been around for over ten years to improve working conditions, safety and cost efficiency in the European utility vehicle industry. The CoolAir RTX series comes with an entirely new technology to continue a unique success story. Powerful and efficient like no other, it offers unique benefits for drivers, installers and fleet operators.

VERY QUIET RUNNING

**4 OPERATING MODES
(AUTO, ECO, MANUAL, BOOST)**

**HIGH EFFICIENT,
LOW POWER CONSUMPTION**




Mobile living made easy.

DOMETIC

9.5 TROUBLESHOOTING

WARNING INSTRUCTIONS






Note

When the vehicle is started or when several loads are switched on the display may briefly show the text message LO  indicating a voltage drop.

1. Control panel warnings

The control system features various functions to protect the air conditioner or, respectively, the battery.

The activation of a protective function is indicated on the display by the following codes.

DISPLAY	DESCRIPTION	CAUSE	REMEDY	FURTHER MEASURES
LO 	The battery monitor signals undervoltage.	The supply voltage is too low. The battery capacity is insufficient to operate the system.	Recharge the vehicle battery. If the error persists, contact your workshop.	1. Check the battery sensor cable 2. Replace the control PCB
HI 	The system signals short-term or permanent overvoltage.	Short-term overvoltage can occur when large electrical loads are turned off. Permanent overvoltage occurs when the supply voltage is inadequate.	<ul style="list-style-type: none"> ➤ Short-term undervoltage: no action required. ➤ If the display message "HI" is indicated for a longer time: have the truck electronics checked. Make sure the voltage supply is lower than 30 V. 	1. Check the battery sensor cable 2. Replace the control PCB
	After the initial start-up: If the symbol is flashing twice every 5 seconds, the system indicates a faulty connection of the battery sensor cable.	The system is unable to measure the battery voltage.	Recharge the vehicle battery.	1. Check the battery sensor cable 2. Replace the control PCB
	During normal operation: A flashing symbol indicates that the battery voltage will soon be no longer sufficient to operate the system.	The battery voltage is only slightly higher than the preset system shut-off value.	Wait until the outside temperature rises above 5°C before you switch on the air conditioner again	1. Check the battery sensor cable 2. Replace the control PCB
LO °C		The ambient temperature is lower than 5°C.	When the compressor is back in normal position, the system can be switched on again.	
	The compressor is shut off. After 5 minutes the whole system is shut off.	The compressor (the cabin) is excessively tilted.	When the compressor is back in normal position, the system can be switched on again.	1. Replace the display PCB

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WARNING INSTRUCTIONS

2. Error messages on the control panel

The display reads "ERROR" when an error has occurred on the parking cooler.

The type of error is indicated on the display by the following error codes.

DISPLAY	DESCRIPTION	CAUSE	REMEDY	FURTHER MEASURES
F01	The compressor doesn't work.	Error in the compressor power supply (open circuit).	<ul style="list-style-type: none"> ➤ Switch the system off ➤ Switch it on again after 30 minutes ➤ Check the ambient temperature (should not be below 5°C or higher than 52°C) 	<ol style="list-style-type: none"> Manual compressor start <ul style="list-style-type: none"> ➤ Service menu item A.01 ➤ If the compressor won't start, continue with item 2 Check the electrical connection of the compressor <ul style="list-style-type: none"> ➤ Electr. Connections on the compressor ➤ Connectors on the control PCB ➤ Damaged wiring
F02	The compressor doesn't work.	Error in the compressor power supply (short circuit)	<ul style="list-style-type: none"> ➤ Switch the system off ➤ Switch it on again after 30 minutes ➤ Check the ambient temperature (should not be below 5°C or higher than 52°C) 	<ol style="list-style-type: none"> Manual compressor start <ul style="list-style-type: none"> ➤ Service menu item A.01 ➤ If the compressor won't start, continue with item 2 Check the electrical connection of the compressor <ul style="list-style-type: none"> ➤ Electr. Connections on the compressor ➤ Connectors on the control PCB ➤ Damaged wiring
F03	The compressor doesn't work.	The compressor is overloaded	<ul style="list-style-type: none"> ➤ Switch the system off ➤ Switch it on again after 30 minutes ➤ Check the ambient temperature (should not be below 5°C or higher than 52°C) 	<ol style="list-style-type: none"> Manual compressor start <ul style="list-style-type: none"> ➤ Service menu item A.01 ➤ If the compressor won't start, continue with item 2 Check the functioning of the condenser fan <ul style="list-style-type: none"> ➤ Check the electr. Connection of the fan (connectors in the compressor compartment) ➤ Check the connectors on the control PCB ➤ Replace the condenser fan If the condenser fan is OK <ul style="list-style-type: none"> ➤ Replace the control PCBw
F04	Condenser fan 1 does not work	Fan does not respond	<ul style="list-style-type: none"> ➤ Switch the system off ➤ Switch it on again after 30 minutes ➤ Check the ambient temperature (should not be below 5°C or higher than 52°C) 	<ol style="list-style-type: none"> Check the electr. connection of condenser fan 1 <ul style="list-style-type: none"> ➤ Plug connectors on the condenser fan ➤ Plug connector on the control PCB ➤ Damaged wiring Manual start of condenser fan 1 <ul style="list-style-type: none"> ➤ Service menu item A.03 ➤ If condenser fan 1 won't start, replace it
F05	Condenser fan 1 is overloaded	Fan speed requirements are not fulfilled	<ul style="list-style-type: none"> ➤ Switch the system off ➤ Switch it on again after 30 minutes ➤ Check the ambient temperature (should not be below 5°C or higher than 52°C) 	<ol style="list-style-type: none"> Check condenser fan 1 Freedom of motion (turn manually if required) Manual start of condenser fan 1 <ul style="list-style-type: none"> ➤ Service menu item A.03 ➤ If condenser fan 1 won't start, replace it
F06	Condenser fan 2 does not work	Fan does not respond	<ul style="list-style-type: none"> ➤ Switch the system off ➤ Switch it on again after 30 minutes ➤ Check the ambient temperature (should not be below 5°C or higher than 52°C) 	<ol style="list-style-type: none"> Check the electr. connection of condenser fan 2 <ul style="list-style-type: none"> ➤ Plug connectors on the condenser fan ➤ Plug connector on the control PCB ➤ Damaged wiring Manual start of condenser fan 2 <ul style="list-style-type: none"> ➤ Service menu item A.04 ➤ If condenser fan 2 won't start, replace it

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DISPLAY	DESCRIPTION	CAUSE	REMEDY	FURTHER MEASURES
F07	Condenser fan 2 is overloaded	Fan speed is not adequate	<ul style="list-style-type: none"> ➤ Switch the system off ➤ Switch it on again after 30 minutes ➤ Check the ambient temperature (should not be below 5°C or higher than 52°C) 	<ol style="list-style-type: none"> 1. Check the electr. connection of the evaporator fan <ul style="list-style-type: none"> ➤ Plug connectors on the condenser fan ➤ Plug connector on the control PCB ➤ Damaged wiring 2. Manual start of the evaporator fan <ul style="list-style-type: none"> ➤ Service menu item A.02 ➤ If the evaporator fan won't start, replace it
F08	The evaporator fan does not work	Fan does not respond	<ul style="list-style-type: none"> ➤ Switch the system off ➤ Switch it on again after 30 minutes ➤ Check the ambient temperature (should not be below 5°C or higher than 52°C) 	<ol style="list-style-type: none"> 1. Check the electr. connection of the evaporator fan <ul style="list-style-type: none"> ➤ Plug connectors on the condenser fan ➤ Plug connector on the control PCB ➤ Damaged wiring 2. Manual start of the evaporator fan <ul style="list-style-type: none"> ➤ Service menu item A.02 ➤ If the evaporator fan won't start, replace it
F09	The evaporator fan is overloaded	Fan speed is not adequate	<ul style="list-style-type: none"> ➤ Switch the system off ➤ Switch it on again after 30 minutes ➤ Check the ambient temperature (should not be below 5°C or higher than 52°C) 	<ol style="list-style-type: none"> 1. Check evaporator fan <ul style="list-style-type: none"> ➤ Freedom of motion (turn manually if required) 2. Manual start of the evaporator fan <ul style="list-style-type: none"> ➤ Service menu item A.02 ➤ If the evaporator fan won't start, replace it
F10	Not defined			
F11	The system is unable to measure the inside temperature	Error in the temperature sensor wiring (open circuit)	<ul style="list-style-type: none"> ➤ Switch the system off ➤ Switch it on again after 30 minutes ➤ Check the ambient temperature (should not be below 5°C or higher than 52°C) 	<ol style="list-style-type: none"> 1. Check the connection of the temperature sensor on the control PCB 2. Check the wiring for damage 3. Replace the temperature sensor 4. Replace the control PCB
F12	The system is unable to measure the inside temperature	Error in the temperature sensor wiring (short circuit)	<ul style="list-style-type: none"> ➤ Switch the system off ➤ Switch it on again after 30 minutes ➤ Check the ambient temperature (should not be below 5°C or higher than 52°C) 	<ol style="list-style-type: none"> 1. Check the connection of the temperature sensor , on the control PCB 2. Check the wiring for damage 3. Replace the temperature sensor 4. Replace the control PCB
F13	The system is unable to measure the outside temperature	Error in the temperature sensor wiring (open circuit)	<ul style="list-style-type: none"> ➤ Switch the system off ➤ Switch it on again after 30 minutes ➤ Check the ambient temperature (should not be below 5°C or higher than 52°C) 	<ol style="list-style-type: none"> 1. Check the connection of the temperature sensor on the control PCB 2. Check the wiring for damage 3. Replace the temperature sensor 4. Replace the control PCB
F14	The system is unable to measure the outside temperature	Error in the temperature sensor wiring (short circuit)	<ul style="list-style-type: none"> ➤ Switch the system off ➤ Switch it on again after 30 minutes ➤ Check the ambient temperature (should not be below 5°C or higher than 52°C) 	<ol style="list-style-type: none"> 1. Check the connection of the temperature sensor on the control PCB 2. Check the wiring for damage 3. Replace the temperature sensor 4. Replace the control PCB

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DISPLAY	DESCRIPTION	CAUSE	REMEDY	FURTHER MEASURES
F15	The system is unable to measure the temperature of the compressor	Error in the temperature sensor wiring (open circuit)	<ul style="list-style-type: none"> ➤ Switch the system off ➤ Switch it on again after 30 minutes ➤ Check the ambient temperature (should not be below 5°C or higher than 52°C) 	<ol style="list-style-type: none"> 1. Check the connection of the temperature sensor on the control PCB 2. Check the wiring for damage 3. Replace the temperature sensor 4. Replace the control PCB
F16	The system is unable to measure the temperature of the compressor	Error in the temperature sensor wiring (short circuit)	<ul style="list-style-type: none"> ➤ Switch the system off ➤ Switch it on again after 30 minutes ➤ Check the ambient temperature (should not be below 5°C or higher than 52°C) 	<ol style="list-style-type: none"> 1. Check the connection of the temperature sensor on the control PCB 2. Check the wiring for damage 3. Replace the temperature sensor 4. Replace the control PCB
F17	The temperature of the compressor is too high	Thermal overload of the compressor	<ul style="list-style-type: none"> ➤ Switch the system off ➤ Switch it on again after 60 minutes ➤ Check the ambient temperature (should not be below 5°C or higher than 52°C) 	<ol style="list-style-type: none"> 1. Manual start of the compressor <ul style="list-style-type: none"> ➤ Service menu item A.01 ➤ If the compressor won't start, continue with item 2 2. Check the electr. connection of the compressor <ul style="list-style-type: none"> ➤ Electr. connections on the compressor ➤ Plug connector on the control PCB ➤ Damaged wiring
F18	Not defined			
F19	Not defined			
F20	The system reports a (short-time) electrical overload	The current power demand of the system is too high	<ul style="list-style-type: none"> ➤ Switch the system off ➤ Switch it on again after 30 minutes ➤ Check the ambient temperature (should not be below 5°C or higher than 52°C) 	Replace the control PCB
F21	Display entries have no effect	Communication problem between the display PCB and microchip	<ul style="list-style-type: none"> ➤ Switch the system off ➤ Switch it on again after 30 minutes ➤ Check the ambient temperature (should not be below 5°C or higher than 52°C) 	Replace the control PCB
F22	Display entries have no effect	Communication problem between the display PCB and microchip	<ul style="list-style-type: none"> ➤ Switch the system off ➤ Switch it on again after 30 minutes ➤ Check the ambient temperature (should not be below 5°C or higher than 52°C) 	<ol style="list-style-type: none"> 1. Check the electr. connection on the control PCB 2. Check the electr. connection on the display PCB 3. Check the wiring for damage 4. Replace display PCB 5. Replace control PCB









9.6 SERVICE MENU

NO.	DISPLAY	PROGRAMMING (READ/WRITE)	RANGE
1	P.01	Low-voltage cut-off	20 – 23.5
2	P.02	°C / °F	1/0 (°C = 0, °F = 1)
3	P.03	Not defined	

NO.	DISPLAY	PROGRAMMING (READ/WRITE)	RANGE
4	L.01	Software version M-PCBA	1.00 – 9.99
5	L.02	Software version D-PCBA	1.00 – 9.99
6	L.03	Operating hour meter	0 – 999
7	L.04	Battery voltage Sensing line	8 V ... 35 V
8	L.05	Temperature NTC 1	–40 °C ... +140 °C
9	L.06	Temperature NTC 2	–40 °C ... +140 °C
10	L.07	Temperature NTC Compressor	–40 °C ... +140 °C
11	L.08	Level indicator 1/0	(high = 1, low = 0)
12	L.09	Error memory	99 entries

NO.	DISPLAY	PROGRAMMING (READ/WRITE)	RANGE
13	A.01	Manual compressor start	1/0 (start = 1) rpm: 1500, t = 20 s
14	A.02	Evaporator fan 100%	1/0 (start = 1) t = 20 s
15	A.03	Condenser fan 1 100%	1/0 (start = 1) t = 20 s
16	A.04	Condenser fan 2 100%	1/0 (start = 1) t = 20 s
17	A.05	Condensate pump	1/0 (start = 1) t = 20 s

START AND EXIT CONFIGURATION MENU

- Press and hold symbol button .
- Press symbol button  and hold it for more than 3 s.
- ✓ Symbol  appears on the display.
- ✓ The parking cooler changes to configuration mode.
- ✓ The display shows "P.01" and symbol  is flashing.
- Change the menu level by pressing the  or  buttons.
- Press symbol button  to access the selected menu level.
- Press symbol button  for more than 3 s to exit the configuration menu.