

# Maintenance Manual

enclosure cooler

We Think About  
**FUTURE**

# INDEX

**ABOUT US / 04**

**MAINTENANCE / 08**

**EVAPORATOR MAINTENANCE / 09**

**CONDANSER MAINTENANCE / 10**

**FAILURE CODES / 11**



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# Professional Cooling Solution

To avoid malfunctions  
**Air Conditioner for Enclosure**

Smart Solutions  
Easy Maintenance  
High Quality



## about us

As UludagKlima, we are proud to be the first and only domestic manufacturer in the enclosure cabinet cooler producing industry in Turkey. Our company that related to air conditioner manufacturing business since 1998, started to mass production in the year 2000.

Since then our manufacturing capacity developed increasingly year by year. To day most of the large scale industrial establishmnets' enclosures are being conditioning by Uludag Klima products. UludagKlima increases the client potential every day with solutions based on customer - focused quality understanding.



**%100** Satisfaction

The region's highest  
quality enclosure cooler  
production.



# ENCLOSURE COOLER

# Maintenance Manuel

## General Cleaning Steps

### Maintenance Manuel

15-day period of your device in the condenser, evaporator maintenance has to be made in annual periods. Depending on the situation of environmental pollution, you must specify the period. (May extend or decrease)



Evaporator Maintenance  
Part 11:40 of Video  
Scan and Watch

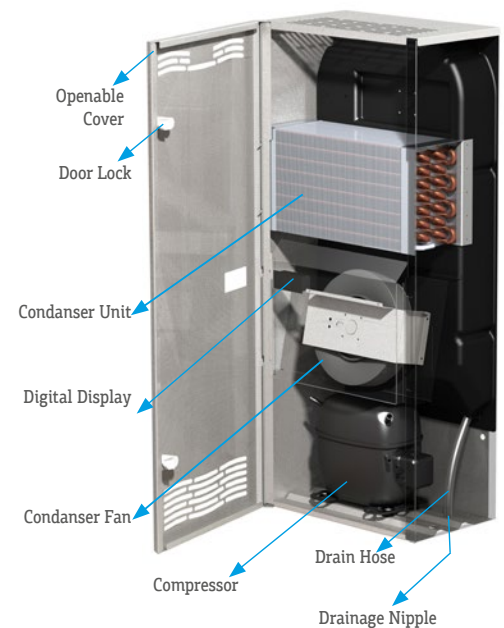
YouTube

### Condanser Maintenance

- 1- Turn off the power of the unit and open the front cover.
- 2- Clean the oil, dirt, dust etc. adhered to the condanser with compressed air. (Dirty inadequate heat transfer from the condenser, short-term failure of the device and high causes energy consumption. If it cannot be cleaned by air, use cleaning chemical such as solvent).
- 3- Clean the dirt on fan blades. (Causes to fan balance and to fail in a short time)
- 4- Check the drainage hose. If there is a breakage or blockage, remove it. (Otherwise there is a possibility of condensation water splashing into the cabinet)
- 5- Check the electrical connection cables (wear, friction, dislocation, causes malfunction of the unit)
- 6- Check the thermostat settings of the A/C. Make sure that it is within the set values recommended by the manufacturer. (34 °C - 38 °C). Setting the inside of the enclosure too low will cause unnecessary energy consumption.
- 7- After making sure that the cover of the A/C is closed, turn on the energy. (If the cover is open, the unit doesn't work efficiently and cause accidents.)

**Not:** For "Er2" or "HTC" messages, do condenser maintenance.

**Compressor and Condenser fan run at the same time. Make sure the condenser fan is turning while the compressor is working.**



### Evaporator Maintenance

- 1- Turn off the power of the unit, the vertical air conditioning units located above or behind the removed bolts and disconnect the fan iron.
- 2- The evaporator fan motor is stuck at the bottom of the oil, dirt, dust, etc. cleaned with compressed air.
- 3- The dirt on fan blades clean. In a short time to balance the fan and cause it to fail.
- 4- Evaporator pollution situation, the worse you think you can use a chemical cleaner. (Pour water to evaporator pan and, followed by water to make sure not clogged drain lines)
- 5- Check the electrical connection cable
- 6- Top / back to replace your metal. By making the final control device to give the energy
- 7- Check the thermostat settings for the device. In the heat value of the firm suggests that you pay attention to. (34 °C - 38 °C)
- 8- After making sure the lid closed, turn ON the A/C.

**Not:** For "Er3" or "LTE" messages, do evaporator maintenance."

**When the A/C is powered on, the internal EVAP fan operates regardless of temperature. Make sure the internal circulation fan is spinning.**





# EVAPORATOR MAINTENANCE

## LTE / ER3

When the EVAPORATOR inside the A/C is filled with dust, not enough air can pass through and the evaporator cools down too much.

This message prevents of evaporator frost. **Clean the evaporator thoroughly.**

### 1. Turn Off

The A/C



### 2. Unscrew

The bolts of cover.



### 3. Remove

The fan cover.



### 4. Check

The green connectors.



### 5. Clean thoroughly

The Evaporator Unit.



### 6. Be sure to clean

And Turn On.



# CONDANSER MAINTENANCE

## HTC / ER2

When the **CONDENSER** at the front of the A/C is filled with dust, not enough air can pass through and the condenser overheats.

This message prevents the compressor from malfunctioning due to high pressure. **Clean the condanser thoroughly.**

### 1. Turn Off

The A/C



### 2. Open

The front cover



### 3. Clean thoroughly

The condanser unit



### 4. Clean thoroughly

The condanser fan



### 5. Check

The Drainage hose



### 6. Check

The thermostat settings



# Failure Codes

## Maintenance Warnings

### Uludag Klima | Enclosure Coolers

The air conditioner provides information to the user before failure by the error codes. When you see an error code, please do maintenance care.

#### **CF - ER1**

No Cooling

When the compressor works for 10 min., if the evaporator sensor value does not decrease more than 3 °C from the value at which the compressor is activated, the error occurs. Alarm relay is activated, Compressor stops. Cooling Error, Gas Leakage or Compressor Failure.

#### **HTC - ER2**

Condanser Sensor Alarm

When the condenser sensor value exceeds 75 °C. Alarm relay is activated, Compressor stops.

**Reasons:**A) The condenser unit is extremely dusty, sufficient air cannot be passed through. Clean the condenser unit with compressed air. B) Condenser fan is defective.

#### **LTE - ER3**

Evaporator Sensor Alarm

Evaporator Sensor Alarm occurs, when Evaporator sensor value falls below 3 °C. Alarm relay is activated, Compressor stops. **Reasons:** A) The evaporator unit is extremely dusty, sufficient air cannot be passed through. Clean the evaporator unit with compressed air. B) The evaporator fan is defective.

#### **HTP - ER4**

High Temperature Alarm

This alarm occurs when the cabinet internal temperature is greater than the 'Set + High Temp Point' parameter. It notifies that the internal temperature of the cabinet exceeds the alarm level, the alarm relay is activated. HIGH TEMP SET and HIGH TEMP POINT parameters can be set at **MENU-2**.

#### **DOOR - AIN**

Door Open

Door open alarm. When this error occurs, compressor and fan. Check the door switch cables from the power connection terminal. If you have not connected a door switch, enter menu-2 with the SET and R keys and change the Door Switch Relay parameter NO/NC.

#### **OFF**

StandBy / OFF Mode

If the Reset (R) button is pressed for 3 seconds, the device goes to OFF mode. If the Reset (R) button is pressed for 3 seconds while OFF is written on the display, the unit goes back into operating mode.

#### **SB**

Sensor Break / No Contact

Appears when there is a break or contact problem in the sensors.

**SB-1** (Cabinet), **SB-2** (Condanser), **SB-3** (Evaporator).

Check the sensor connections on the electronic card.

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