

REFRIGERANT LEAK DETECTOR RLD-KIT-E

USER'S MANUAL

User's manual	ENGLISH
Anwenderhandbuch	DEUTSCH
Manuel de l'utilisateur	FRANÇAIS
Manual del propietario	ESPAÑOL
Istruzioni per l'uso	ITALIANO
Gebruikershandleiding	NEDERLANDS
Kullanım kılavuzu	TÜRKÇE
Manual do utilizador	PORTUGUÊS
Podręcznik użytkownika	POLSKI



This product complies with following directives/regulations

EU	GB
MD 2006 / 42 / EC	SMR S.I. 2008 / 1597
LVD 2014 / 35 / EU	EER S.I. 2016 / 1101
EMC 2014 / 30 / EU	EMC S.I. 2016 / 1091
RoHS 2011 / 65 / EU	RoHS S.I. 2012 / 3032
Ecodesign 2009 / 125 / EC	Ecodesign S.I. 2020 / 1528

CE and UKCA marking is applicable to the area of 50 Hz power supply

Ce climatiseur est conforme aux directives suivantes :

Machinerie 2006 / 42 / EC
Basse tension 2014 / 35 / EU
EMC 2014 / 30 / EU
RoHS 2011 / 65 / EU

Conception écologique
2009 / 125 / EC

Le marquage CE est applicable dans les zones d'alimentation électrique de 50 Hz.

Este aire acondicionado cumple con las siguientes directrices.

Maquinaria 2006 / 42 / EC
Bajo voltaje 2014 / 35 / EU
EMC 2014 / 30 / EU
RoHS 2011 / 65 / EU
Ecodiseño 2009 / 125 / EC

La marca CE corresponde al área de suministro de energía de 50 Hz.

Questo condizionatore è conforme alle seguenti norme:

Macchine 2006 / 42 / EC
Bassa tensione 2014 / 35 / EU
EMC 2014 / 30 / EU
RoHS 2011 / 65 / EU

Ecoprogettazione 2009 / 125 / EC
La marcatura CE è applicabile all'area di alimentazione elettrica di 50Hz.

Deze airconditioner voldoet aan de volgende richtlijn.

Machinerie 2006 / 42 / EC
Lage spanning 2014 / 35 / EU
EMC 2014 / 30 / EU
RoHS 2011 / 65 / EU
Ecodesign 2009 / 125 / EC

CE-markering is van toepassing op het gebied met een netstroom van 50 Hz.

Bu klima aşağıdaki yönerge ile uyumludur.

Makine 2006 / 42 / EC
Alçak gerilim 2014 / 35 / EU
EMC 2014 / 30 / EU
RoHS 2011 / 65 / EU
Çevreci tasarım 2009 / 125 / EC
CE 50Hz güç kaynağının alanı için de geçerlidir.

Diese Klimaanlage entspricht den folgenden Richtlinien.

Maschinen 2006 / 42 / EC
Niederspannung 2014 / 35 / EU
EMC 2014 / 30 / EU
RoHS 2011 / 65 / EU
Ecodesign 2009 / 125 / EC
CE Herstellung ist in Bereich mit 50 Hz Stromversorgung anwendbar.

Este ar condicionado respeita as seguintes directivas.

Maquinário 2006 / 42 / EC
Baixa Voltagem 2014 / 35 / EU
EMC 2014 / 30 / EU
RoHS 2011 / 65 / EU
Ecodesign 2009 / 125 / EC

Tomada CE é aplicável a área da fonte de alimentação 50Hz.

Ten klimatyzator spełnia wymogi niżej wymienionej dyrektywy. Maszynowa 2006 / 42 / EC Niskonapięciowa

EMC 2014 / 35 / EU
RoHS 2014 / 30 / EU
RoHS 2011 / 65 / EU
Dot. ekoprojektu 2009 / 125 / EC

Znakowanie CE ma zastosowanie do obszaru prądu zasilającego 50 Hz

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Thank you very much for your purchasing the REFRIGERANT LEAK DETECTOR.

This user's manual describes cautions for safety. Please read this manual carefully before use in order to operate the unit properly.

Keep this manual, after reading, at a safe place where you can consult it whenever it is necessary.

When the ownership of the unit is changed, please be sure to transfer this manual and the "Installation Manual" to a new owner.

It is not recommended for a user to install or move the unit by the user's own discretion. (Safety or functions may not be assured.)

ENGLISH



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1. SAFETY PRECAUTIONS

Safety precautions

- Please read the precautions written here carefully to operate the unit properly. You are required to observe these fully because every item of these instructions is important for safety.


 WARNING	Failure to follow these instructions may result in serious consequences such as death, severe injury, etc.
 CAUTION	Failure to follow these instructions may cause injury, property damage or, serious consequences depending on.


- The following pictograms are used in the text.


	Never do.		Always follow the instructions given.
	Absolutely keep water away.		Absolutely keep wet hands away.

- Keep this manual at a safe place where you can consult with whenever necessary. Show this manual to installers when moving or repairing the unit. When the ownership of the unit is transferred, this manual should be given to a new owner.
- **Electrical wiring work must be implemented only by qualified specialists.**


WARNING

-  **Consult your dealer or a professional contractor to install the unit.**
Improper installation made on your own may cause electric shocks, fire or dropping of the unit.

-  **Consult your dealer when moving, disassembling or repairing the unit. Never modify the unit.**
Improper handling may result in injury, electric shocks, fire, etc.

-  **Avoid using combustible substances (hair spray, insecticide, etc) near the unit. Do not use benzene or paint thinner to clean the unit.**
It could cause cracks, electric shocks or fire.

Stop operation under abnormal situation.

-  If continued, it could result in break-down, electric shocks, fire, etc.
If any abnormal condition (burnt odor etc.) occurs, stop operation, turn off the power switch and consult your dealer.

CAUTION



Do not use or let use the unit or refrigerant leak detector as play equipment.

Improper operations could cause ill health or health disorder.



Never disassemble the refrigerant leak detector.

If you touch internal parts accidentally, you could get electric shocks or cause trouble.



Do not wash the refrigerant leak detector with water or liquid.

It could cause electric shocks, fire or break-down.



Do not touch electric parts or operate buttons with wet hands.

It could cause electric shocks, fire or break-down.



Do not dispose the refrigerant leak detector by yourself.

It could destruct the environment. Ask your dealer when it is necessary to dispose the refrigerant leak detector.



When you change the layout of your room, consult a dealer or a specialist.

Safety measures and detection systems may not work properly.

Note



The refrigerant leak detector should not be installed where it is exposed to direct sunlight or the ambient temperatures become higher than 40°C or lower than 0°C.

It could cause deformation, discoloration or break-down.



Do not use benzene, paint thinner, wipes etc. to clean the refrigerant leak detector.

It could discolor or break-down the refrigerant leak detector. Wipe it with a piece of cloth which is squeezed tightly after wetting with diluted neutral detergent. Finish up the cleaning by wiping with a piece of dry cloth.



Do not pull or twist the cable of the refrigerant leak detector.

It could cause break-down.



Do not tap the refrigerant leak detector buttons pointed objects.

It could damage or cause break-down.

Precautions for waste disposal



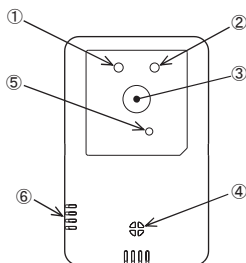
Your Air Conditioning product may be marked with this symbol. It means that waste electrical and electronic equipment (WEEE as in directive 2012/19/EU) should not be mixed with general household waste. Air conditioners should be treated at an authorized treatment facility for re-use, recycling and recovery and not be disposed of in the municipal waste stream. Please contact the installer or local authority for more information.

Refrigerant leak detector specifications

Item	Description
Product dimensions	100(W) x 159(H) x 28(D) mm (not including protruded section)
Weight	0.16 kg
Power supply	DC 18V
Usage environment	Temperature: 0 to 40 °C
Material	Casing: ABS

2. INFORMATION OF THE PARTS

The refrigerant leak detector starts measure concentration of refrigerant after turn on the power.



① Operation light (Green)

This light is turned on when normally (When refrigerant is not leaking).

Depending on the condition of the refrigerant leak detector, it may flashing.

② Error light (Red)

This light is turned off when normally (When refrigerant is not leaking).

It is flashing when a refrigerant leak is detected or when there is something wrong with the refrigerant leak detector.

③ Switch

Following operations are possible depending on the setting of internal switches:

- Stopping alarm sound when refrigerant leak is detected.
- Stop of light flashing for refrigerant sensor replacement notice

④ Refrigerant detection part (Refrigerant sensor)

The part where refrigerant concentration is measured.

⑤ Alarm

The part where sound an alarm.

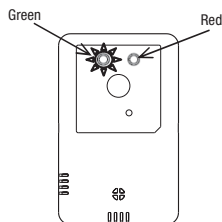
⑥ Room temperature detection part (R/C sensor)

The part where room temperatures is measured.

Set this function ON or OFF from the remote controller.

3. HOW TO OPERATE

1. Normal condition (When refrigerant does not leak).



① Only the operation light (Green) turns on.



Light OFF



Light ON



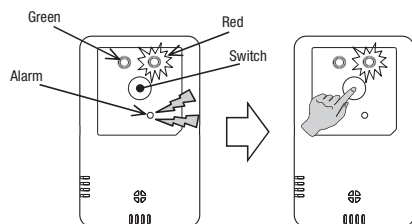
Light flash



Alarm sounds

2. Refrigerant leak

<When refrigerant leak is detected.>



① If concentration of leaked refrigerant exceeds certain level, following situations will happen.

- Operation light (Green) turns off.
- Error light (Red) flashing continuously.
- Alarm sounds.

② Stop the alarm by pushing the switch.

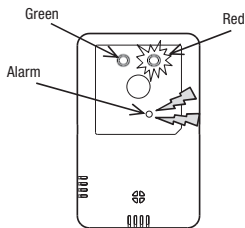
③ The refrigerant leak must be immediately reported to the administrator of air-conditioner.



CAUTION

Refrigerant is leaking from the air-conditioner.
Request inspection or repair.

<When the concentration increases after a refrigerant leak is detected.>



- ① When the concentration of the leaked refrigerant increases, following situations will happen.
 - Operation light (Green) keeps turn off.
 - Error light (Red) keeps flashing continuously.
 - Alarm sounds. It repeats even if it is stopped with the switch.

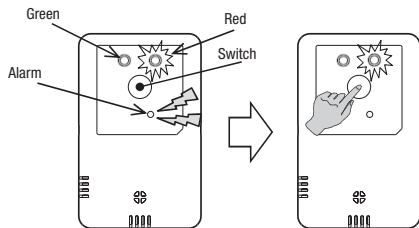
Alarm will not stop even if the switch is pushed.
- ② Check if it is ventilated by such as opening the window.
- ③ **It is dangerous because refrigerant keeps leaking. Evacuate from the place.**
- ④ **Immediately report to the administrator of air-conditioner that the concentration of leaked refrigerant is increasing.**



WARNING

It is very dangerous because the concentration of leaked refrigerant is increasing. Evacuate the place and inform others in the same or other rooms of the danger.

<When the concentration drops after a refrigerant leak is detected.>



- ① When the concentration of the leaked refrigerant drops, following situations will happen.
 - Operation light (Green) keeps turn off.
 - Error light (Red) changes to 5 times flashing.
 - Alarm sounds synchronized with error light.
- ② Alarm stops if the switch is pushed.

*If the alarm is stopped by pushing the switch at refrigerant leak, the alarm does not sound even if the concentration drops.

Flashing of Error light (Red) changes.
- ③ **Check if the refrigerant leak has been reported to the administrator of air-conditioner. If it was not, report it.**



CAUTION

Refrigerant has leaked from the air-conditioner.
Request inspection or repair.

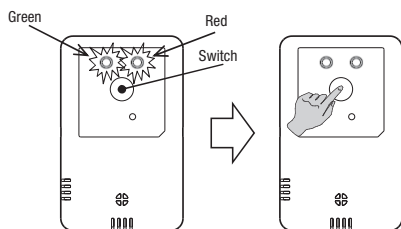
3. Refrigerant sensor lifetime

The lifetime of refrigerant sensor is 15 years.

It must be replaced when 15 years have passed since the day of purchase.

Request the sensor's replacement to your dealer.

<When it becomes close to the replacement time of refrigerant sensor>



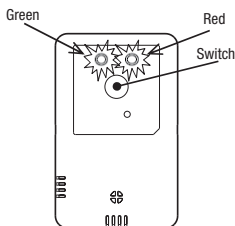
- ① Getting close to the replacement time of refrigerant sensor, the detector will be in the following condition (it will start 6months before the replacement time).
 - Operation light (Green) and Error light (Red) **flash 3 times one after the other.**
- ② The light will stop flashing if you press the switch.
- ③ **Once a month, the user will see the condition**
①. It will continue until the replacement time.
Please contact your dealer for the replacement and the order of sensor when you see the notification.



CAUTION

It may take long time to receive new refrigerant sensor. Please contact your dealer as early as possible.

<When replacing the refrigerant sensor>



- ① When it becomes the date to replace refrigerant sensor, the detector will be in the following condition.
 - Operation light (Green) and Error light (Red) **flash one after the other. The light will not stop flashing even if you press the switch.**
- ② **Please contact your dealer for the replacement and the order of new refrigerant sensor.**



CAUTION

If you do not replace old sensor with new sensor, refrigerant leak will not be detected correctly. Make sure that the replacement is made at the requested time.

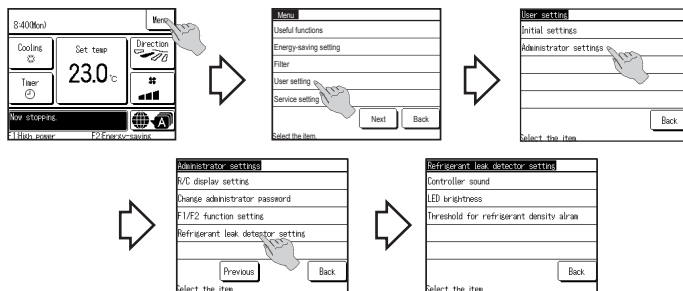
4. FUNCTION SETTINGS

1. How to set by remote controller

Each setting of the detector can be made by remote controller (RC-EX3D or later). The administrator password must be entered during setting.

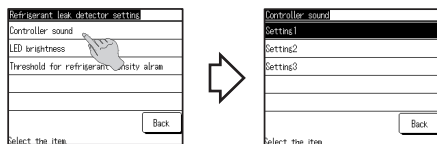
Tap the **menu** button on the TOP screen and select **User setting** ⇒ **Administrator settings** ⇒ **Refrigerant leak detector setting**.

The following screen displays of remote controller can change without any announcement. Please refer to the remote controller's manual for the latest information.



<Controller sound>

The level of alarm sound for refrigerant leak is adjustable.
If you set it, the alarm will sound for 3 seconds in the selected sound.



Setting 1: The biggest sound.

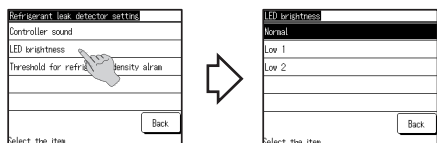
The setting selected in the original factory state.

Setting 2: The sound slightly smaller than Setting 1.

Setting 3: The sound smaller than Setting 1.

<LED brightness>

The brightness of Operation light (Green) that turns on in the detector's operation is adjustable.



Normal: 100% brightness.

The setting selected in the original factory state.

Low 1: 75% brightness.

Low 2: 50% brightness.

<Threshold for refrigerant density alarm>

After detecting refrigerant leak, the alarm sound and the flash of Error light (Red) change to notify a decrease in the concentration.

The concentration level to turn on the notifications is adjustable.

The patterns of the alarm sound and Error light (Red) are as follows.

	Alarm sound	Error light (Red)	Operation light (Green)
When refrigerant leak is detected	Continuous	Continuous flash	OFF
When the concentration of refrigerant inside room decreases	Intermittent	5 flashes	OFF

Intermittent sound:
Synchronized with flash of Error light (Red).



High: The same level as the concentration when refrigerant leak is detected.
The setting selected in the original factory state.
Normal: The level of concentration is between High and Low.
Low: The level of concentration close to the lowest concentration that the detector can sense.

2. How to set by detector

When the detector detects refrigerant leak, it turns on the alarm and Error light (Red) to notify the leak.

Each of the following settings can be made on the detector. Contact your dealer for these settings.

<Function to stop the alarm>

This function stops the alarm sound emitted during refrigerant leakage using the switch on the detector. This function is turned on in the original factory state.

When this function is turned on, by pushing the switch once while the detector's alarm is sounding, the alarm sound will stop. Note that this will not stop the flashing of the Error light (red).

You can turn off the function to stop controlling the alarm sound by switch.

<Alarm function>

This function triggers an alarm sound when a refrigerant leakage occurs. This function is turned on in the original factory state. When other alarms are used for refrigerant leakage alarms, you can turn off the function that sounds an alarm.



CAUTION

When the alarm of this detector is turned off, other device to alert the user for refrigerant leak must be installed. The lack of alert system is dangerous when refrigerant leak happens.

<Function to detect leak>

This function detects refrigerant leakage. This function is turned on in the original factory state.

When using other detectors for refrigerant leakage detection and using this detector solely as an audible alarming device, you can turn off the function to detect refrigerant leakage.



CAUTION

When the detection of this detector is turned off, other device to detect refrigerant leak must be installed. The lack of detector is dangerous when refrigerant leak happens.

5. ERROR AND WARNING

If the lights start flashing and the alarm makes sound, it means that the detector is having a trouble.

In this case, conditions of the detector must be reported to the dealer for inspection and repair.



CAUTION

The detector cannot detect refrigerant leak correctly.
This condition is dangerous when refrigerant leak happens.

*1

*2

No.	Trouble type	Major cause	Operation light (Green)	Error light (Red)	Alarm	Switch 1 push
1	Failure of Refrigerant sensor	Refrigerant sensor is broken.	1 flash (alternate)	1 flash (alternate)	ON	Alarm OFF
2	Disconnection of Refrigerant sensor	Refrigerant sensor comes off. A wire for Refrigerant sensor gets blown.	2 flash (alternate)	2 flash (alternate)	ON	Alarm OFF
3	Over connected (too many indoor units)	Connecting to more than 17 indoor units.	3 flash (simultaneous)	3 flash (simultaneous)	OFF	—
4	Breakage of a wire for Temperature sensor	Temperature sensor comes off. A wire for Temperature sensor gets blown.	4 flash (simultaneous)	4 flash (simultaneous)	OFF	—
5	Communication error	Not communicating with indoor units.	5 flash (simultaneous)	5 flash (simultaneous)	OFF	—
6	Unregistered status of indoor units when switching on	Indoor units are not responding.	6 flash (simultaneous)	6 flash (simultaneous)	OFF	—

*1: Light flashes are as follows.

Simultaneous: Operation (green) and Error (red) flash simultaneously. Alternate: Operation (green) and Error (red) flash alternately.

*2: The operation when the switch is pushed once during each trouble.



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