



Always the
Spirit of Innovation

EV Charging Station

: Manual

ULVAC

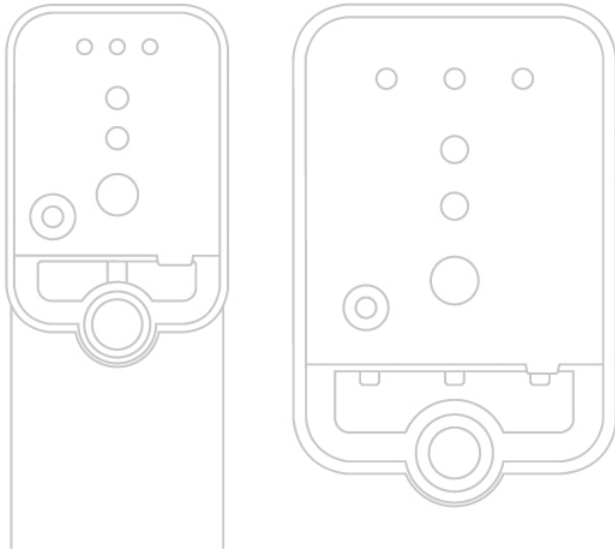
Electric Vehicle Charging Station

UK - NC7S-SC01 / NC7W-SC01 / FC22S-SC01 / QC43S



GOD DESIGN

Selected by the Ministry of Trade,
Industry and Energy of Korea



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The size and exterior appearance of this product may change without prior notification for quality improvements. It is legally forbidden to copy either some or all of the contents of this manual.

The copyright and ownership of this manual belong to ULVAC, and the ownership of all the technology and designs used for this product belong to ULVAC as well.

1. Introduction

Thank for purchasing EV Charging Station of ULVAC.

This chapter describes details about risks, notices and safety.

Please read this manual carefully before using this product and keep this manual at a place you can find easily for reference any time.

1-1 Safety Guide

This device has possibility of 'electric shock' and 'explosion' since it uses 'high voltage' and 'high current'.

However, it is designed safe enough to prevent users from any risks as long as they operate this device safely according to this manual.

1-2 Kinds of Warning Signs

Warning signs and cautions in this manual specify and explain possible human and property damages.

Please understand notices as well as warning signs and cautions before using this product.



Danger

When this product is mishandled, it is likely to lead to death or injury or property damage.



Caution

When this product is mishandled, it is likely to lead to physical disability or property damage, with low possibility of death or serious injury.

1-3 Technology for Safety

For the maximum performance of this product, please keep all the safety-related notices below.



Danger

Our company is not liable for any malfunction, and human and property damage caused by your operating this product against this manual or disassembling the safety circuits of this product arbitrarily.

- This charger is designed only to charge the batteries mounted on electric vehicles. Do not use it for other purposes.
- Do not disassemble or remodel this product in any case. If you do so, you won't receive our A/S at all.
- The installation or the very first inspection of this product has to be done by engineers from ULVAC.
When this product is installed or inspected by an unauthorized person, you won't get our A/S at all.
- The internal system of this product may differ depending on the country importing this product.
Please check possible countries and environments for installation (through ULVAC A/S).
- It is forbidden to arbitrarily change the installation place. You may request to change the location of this product through ULVAC A/S.
- Prior to judging that this product malfunctions, please read 'Failure Signs and Solutions' in Page 6.
- Please use a dry towel to clean this product.
(Never spray water or use a wet towel since it may lead to electric shock or internal part damage.)
- When you find moisture inside the charging gun, please remove it before using this product.

1. Introduction

- Please be careful not to let foreign matter go inside this product. It may have possibility of fire.
- When not used, the charging cable and gun must be stored according to 4.3 'Storage of Charging Cable and Gun'.
- When you need to open the frontal panel of this charger or the cover at the back of the stand, please use the keys provided.



Caution

When opening the frontal panel or the cover at the back of the stand, please follow the below.

- ▶ Turn off the circuit breaker in the panel board.
- ▶ Be careful when handling the internal circuits or parts.
It may lead to electric shock because of high voltage (220 to 380V).
- ▶ Please inquire of the manufacturer before opening them.

1-4 Definition of Names

- Hereinafter, 'ULVAC' is defined as 'Our Company' or 'Manufacturer'.
- Hereinafter, 'Electric Vehicle' is defined as EV.
- Hereinafter, 'Charger' is defined as 'Product'.

1-5 Tips to the Manual

This manual is an integrated manual for all the EV rechargers made by ULVAC.

All the contents described in this manual are about our products, Model UK-NC7C-SC01, NC7W-SC01, FC22S-SC01 and QC43, and the specifications of each model are separately explained.

(Ex.: Only for UK-NC7S-SC01)



Notice

Specifications and how to use may differ depending on the model.

	전자파장애/내성시험필	
	EMI / EMS	
한국전자파연구원		
한국일빅(주)		
품명	전기차충전기	
모델명	UK-NC7S, UK-NC7W	
정격입력	AC 220V~, 10kw, 60Hz	
정격출력	AC 220V, 32A, 10kw, 60Hz	
위상	단상 2선식	
제조년월	년 월	
일련번호		
보호등급	IP44	
인증번호	YH07043-15001	
제조국가	대한민국	
판매처	한국일빅(주)	
제품서비스	031-684-2921	

- ▶ After checking the model name of your product, please read the related specifications carefully.
- ▶ How to find out the product model
Please look at the model name on the right side of this product.

2. Product Composition and Functions

| This chapter explains the composition and functions of this product in detail.

2-1 Product Components

- ▶ Main Body
- ▶ Charger Stand
(only for UK-FC22S-SC01)
- ▶ Wall Mount Bracket
(only for UK-NC7W-SC01)
- ▶ Two Authentication Cards
- ▶ Two Charger Keys



Main Body

used for both
UK-NC7S-SC01
and UK-NC7W-SC01



Charging Cable Connector Lock



Main Body

used for both
UK-FC22S-SC01
and UK-QC43S

❖ Different components may be mounted or provided for each model.

Charger Stand

used for
UK-NC7S-SC01,
UK-FC22S-SC01
and UK-QC43S



Charging Cable and Gun

used only for
UK-FC22S-SC01



User Authentication Cards

Wall Mount Bracket

used only for
UK-NC7W-SC01



Charging Cable Holder

used for both
UK-FC22S-SC01
and UK-QC43S



Charger Keys

▶ All the pictures and images used for this catalogue are provided to help users understand better, and they may be different from actual components.

2-2 Component Names

Exterior Appearance

- 1 Main Body
- 2 Charging Gun Holder
- 3 Charging Cable Holder
- 4 Charging Cable
- 5 Body Stand



Frontal Operation Panel



▶ The front panel lock



▶ System power switch

- 1 State Indicating Lamp (Stand-by, Charging and Failure)
- 2 Charging-start Button
- 3 Charging-stop Button
- 4 Card Tagging Part
- 5 System Power Lamp
- 6 System Power Switch
- 7 Frontal Panel Lock
- 8 7-segment Indicating Lamp
- 9 EMS (Emergency Stop) Button

2-3 Charging States

- This product does NOT have a function to check the condition of EV or how much the battery is charged.
- The state and information about the battery can be checked through the EV user manual or the panel board.

State	Lamp Motion								Explanation about Each Motion
	Power	Standby	Charging	Failure	Start	Stop	Card-tag	7-segment	
System OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	The system of this product is off. Please turn on the system power switch.
System ON (Charging Standby)	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	The system is normally operating for charging standby. Please tag the user authentication RFID card for charging.
User Authentication Completed	ON	ON	OFF	OFF	ON	OFF	OFF	OFF	User authentication is successfully processed. Please connect the charging gun to the EV.
Charging Preparation	ON	OFF	OFF	OFF	Flickering	OFF	OFF	OFF	The state of EV is in process of inspection. As soon as it is completed, charging will start.
In Process of Charging	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF	The EV is being charged. All the charging process is normal.
Reservation Charging	ON	ON	OFF	OFF	OFF	OFF	OFF	ON	It is in process of reservation charging.
User Authentication while Charging	ON	OFF	ON	OFF	OFF	ON	OFF	OFF	User authentication is successfully completed during the process of charging. When pressing the Stop button, you can stop charging.
Authentication Failed while Charging	ON	OFF	ON	OFF	OFF	OFF	Flickering	OFF	You have tagged a wrong authentication card during the process of charging. Please tag the same card that you used to start charging.
Standby while Charging	ON	OFF	Flickering	OFF	OFF	OFF	OFF	OFF	Charging has been temporarily stopped by the EV or the user. Charging is possible depending on the state of the EV.
Charging Stopped	ON	OFF	OFF	OFF	OFF	Flickering	OFF	OFF	Charging has been stopped since the user pressed the Stop button.
Abnormal Operation ²⁾	ON	OFF	OFF	Flickering	OFF	OFF	OFF	OFF	Charging cannot be carried on because of malfunction.

1) The system power switch is on the right bottom of this product. 2) Please refer to 6.1 'Abnormal Sign Information' when you need detailed information about malfunctions or failures.

3. Inspection and Maintenance

This chapter shows how to maintain this product all the time.

When you experience an abnormal smell, noise or vibration, please stop using this product and receive inspection through ULVAC A/S.

3-1 General Inspection

Users are obligated to check if this product is normal before using it.
Please check the below frequently.

● Main Body

Please examine if there is a damage on the frontal panel.

⇒ When a damage is found, you should stop using this product and receive inspection through ULVAC A/S.

● Charger Stand

Please examine if the rear cover is normally assembled and closed.

⇒ The cover at the back of this product must be close all the time.

● Charging Cable and Gun

Please examine if the charging cable has any damage (flaking or worn-out).

⇒ The charging cable is an expendable component. When damaged, you should replace it with a new one through ULVAC A/S.

(※ Except for UK-NC7S-SC01 and NC7W-SC01)

**Caution**

Please check if there is moisture inside the charging gun.

- ▶ Any moisture must be removed before you use this product.
It may cause a serious damage in the vehicle and the charger.

● Charging Cable Connector Lock

(※Only for UK-NC7S-SC01 and NC7W-SC01)

Do not apply strong force to the connector lock.

Otherwise, it may be broken.

Please close the lock after charging is completed all the time.

**Caution**

Do not close the cable connector lock by force.

- ▶ A lock sensor is installed on the cable connector lock.
Please do not close the lock for 3 seconds after the sensor motion is completed.

3-2 Regular Inspection

To sustain the performance of this product and use it safely, you need to carry out inspection once a month.

- Frontal Panel

Please check if there is any malfunction in all the states of lamps.

- Emergency Stop Button

Please check if the lamp flickers when the EMS button is pressed.



Caution

You must press the EMS button in case of emergency only. If not, it may cause malfunction.

- Frontal Panel and Stand-rear Cover Lock

Please check if the lock is normally operated.



Danger

Pay attention to the below when opening the frontal panel or the cover at the back of the stand.

- ▶ Turn off the circuit breaker in the panel board.
- ▶ Be careful when handling the internal circuits or parts. It may lead to electric shock because of high voltage (220 to 380V).
- ▶ Please inquire of the manufacturer before opening them.

4. How to Operate

This chapter explains how to operate this product.

To use this product safely, you should follow all the procedures stated in this manual.

4-1 How to Start Charging

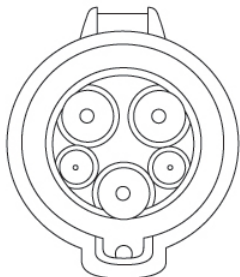
For **UK-NC7S-SC01** and **NC7W-SC01**



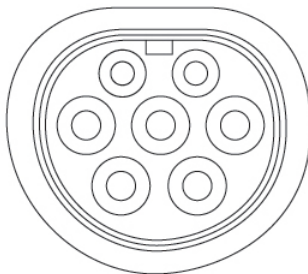
- A) Check if the system power is on.
(The system power switch on the right bottom of this product.)
- B) Check if the standby lamp is on.
- C) Carry out user authentication by using your RFID card.
(Tag the RFID card onto the tagging part.)
- D) When user authentication is successfully completed, the lamp of Start Button will be on. Then, touch Start Button.
(Do not close the cable connector lock for 3 seconds for the sensor motion after touching the Start button.)

4. How to Operate

E) Connect Connector Type 1 of the charging cable to the inlet.



Connector Type 1 for the charger



Connector Type 2 for EV

**Caution**

Make it sure that there is no moisture inside the connector.

- ▶ Please use the connector after removing all the moisture.
Moisture may cause a serious damage in the vehicle or the charger.

**Caution**

The connector connected to EV may differ depending on the EV maker.
The connectors connected to the charger is the same kind, so please connect it to EV at ease.

- F) Close the connector lock of the charging cable.
- G) Connector Type 2 is used for the charging gun as shown in G above, and connect it to the inlet.
(When there is moisture inside the charging gun, remove it before using this product.)



Caution

Make it sure there is no moisture inside the charging gun.

- ▶ Remove moisture before using this product.
Moisture inside the charging gun may cause a serious damage in the vehicle or the charger.

- H) You can start charging by touching the Start button.
- I) When charging is normally begun, the charging lamp will be on.
(When there is moisture found inside the charging gun, please remove it before connection.)

For UK-FC22S-SC01 and UK-QC43S

Tag the
RFID Card



Connect the
Charging Gun to EV



Touch the
Start Button



Charging
Started

- A) Make it sure that the system power is on. (The system power switch is on the right bottom of this product.)
- B) Please check if the standby lamp is on.

4. How to Operate

- C) Carry out user authentication by using your RFID card.
(Please tag the RFID card to the tagging part.)
- D) When user authentication is successfully completed, the charging cable connector lock will be open, and the charging start lamp will be flickering.
- E) Connect Connector Type 1 to the Inlet.
(When there is moisture inside the charging gun, please remove it before connection.)

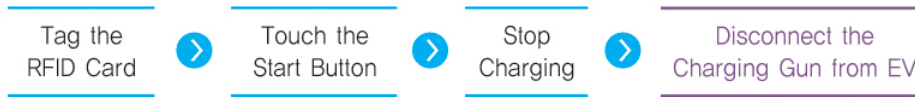
**Caution**

Make it sure there is no moisture inside the charging gun.

- ▶ Moisture may cause a serious damage in the vehicle and the charger.

- F) Touch Start Button to start charging.
- G) When charging is normally begun, the charging lamp will be on.
(The charging lamp may be on late, depending on the state of EV.)

4-2 How to Stop Charging



- A) Users can stop charging anytime during the process of charging.
- B) With the charging lamp on, tag your RFID card onto the tagging part.
(Only the RFID card that was used for user authentication in the beginning will be recognized in this process.)
- C) When user authentication is successfully completed, the charging stop lamp will be on.
- D) When touching the Stop button, it will flicker for a moment. Then, charging will stop. (10 seconds to the maximum)
- E) When charging is normally stopped, the standby lamp will be on.
- F) You may disconnect the charging gun from EV now.
 - When the EV battery is fully charged, charging will stop without additional operation.
 - The way of disconnecting the charging gun from EV is an inverse way of connecting them to each other.



Danger

You must press the EMS button in case of emergency only.
Misusing the EMS button may cause problems in this product.

4-3 Storage of Charging Cable and Gun

When not using this product, please coil the charging cable around the cable holder 4 to 5 times.

Insert the charging gun in the charging gun holder on the main body until 'Click' is heard.

Our company is not liable for any accident caused by users' careless storage of the charging cable and gun.



Caution

- ▶ During the process of charging, the charging cable may be tangled on the ground. Therefore, please be careful not to stumble over the cable when moving between the charger and EV.
- ▶ When storing the charging cable on the holder, please coil it around the holder so that it may not be tangled on the ground.

4-4 Emergency Stop (EMS) Button

Recognize an
Emergency



Press the
EMS Button



All the Functions Stopped
(**'Malfunction' Lamp Flickering**)

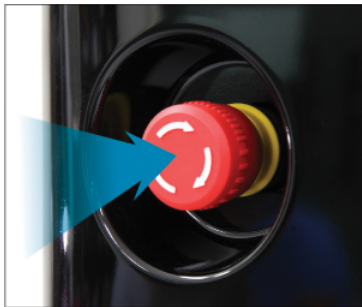
- When recognizing an emergency event while using this product or around this product, press the EMS button on the left bottom of this product without hesitation.
- Then, all the functions of this product will be stopped immediately.
- If possible, please disconnect the charging cable from EV.



Caution

Use the EMS button only in case of emergency.
Misusing the EMS button may cause an operation problem.

How to Activate EMS Button



▶ Press EMS Button

How to Cancel EMS Button



▶ Turn EMS Button to the right

4-5 Reservation Charging Function

Touch the Start Button for 3 Seconds



Set up **Hour** with the Start Button



Press the Stop Button and then Set up **Minute** with the Start Button



Touch the Start Button for 3 Seconds



Reservation Charging Stand-by



- A) When touching the Start button for 3 seconds in the state of charging standby, you can enter the mode of reservation charging.
- B) Every time when you touch the Start button, time increases by one hour.
- C) When pressing the Stop button, you can change the hour setting to the minute setting. Then, every time when you touch the Start button, time increases by 10 minutes.
- D) After setting up hour and minutes for reservation charging, touch the Start button for 3 seconds and the reservation charging will be completed.
- E) All the button lamps are off, and only the reservation time is displayed with the reservation charging standby mode.
- The basic unit of setting hour is 1 hour, and that of setting minute is 10 minutes.
 - Only with the charging cable connected to VE, it is possible to carry out reservation charging.
 - The minimum time for reservation charging is 10 minutes, and the maximum time is 12 hours.
 - The time set is counted down.
 - It is possible to cancel the reservation charging with the Stop button after card tagging.
 - The reservation function is applied to all the models, 7kW, 22kW and 43kW.

5. Specifications

5-1 Detailed Specifications of Each Model

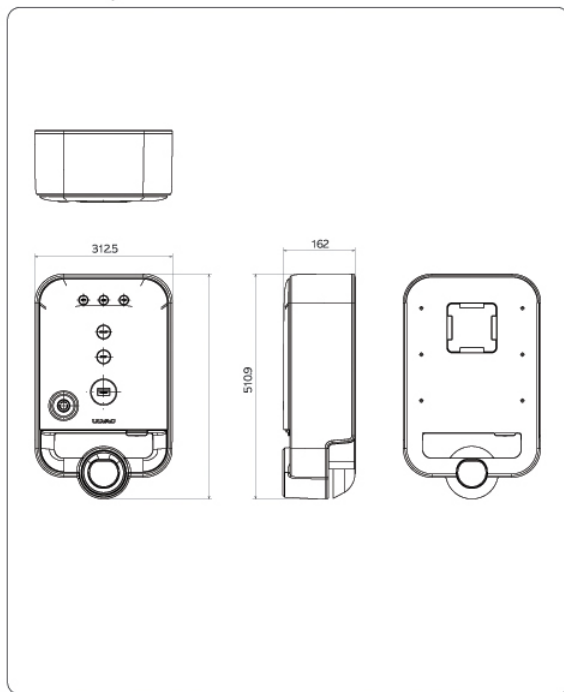
Section	NC7S-SC01	NC7W-SC01	FC22S-SC01	QC43S
Operating Method	Touch Button			
Indicating Method	LED Lamp			
Standard	IEC 61851 -1, IEC 61851 -22			
Authentication	KC Z,E,Ready R1.4			
Input Current	AC 220V, 32A, 60Hz		AC 380V, 32A, 60Hz	AC 380V, 32A, 60Hz
Output Current	AC 220V, 32A, 60Hz, 7kW		AC 380V, 32A, 60Hz, 22kW	AC 380V, 63A, 60Hz, 43kW
Protection Degree	IP44			
Charging time (Hour)	3~4	3~4	1	0.5
Over-voltage Protective Device	0	0	0	0
Over-current Protective Device	0	0	0	0
Double Power Switch	0	0	0	0
Lightening Protective Device	0	0	0	0
Charging Cable & Gun	X	X	0	0
User Authentication	RFID Card			
Product Size (W x D x H, mm)	312 x 303 x 1500	312 x 303 x 511	312 x 303 x 1500	312 x 303 x 1500
Installation Method	Stand	Wall	Stand	Stand

※ The specifications above may change without a prior notice for the improvement of this product.

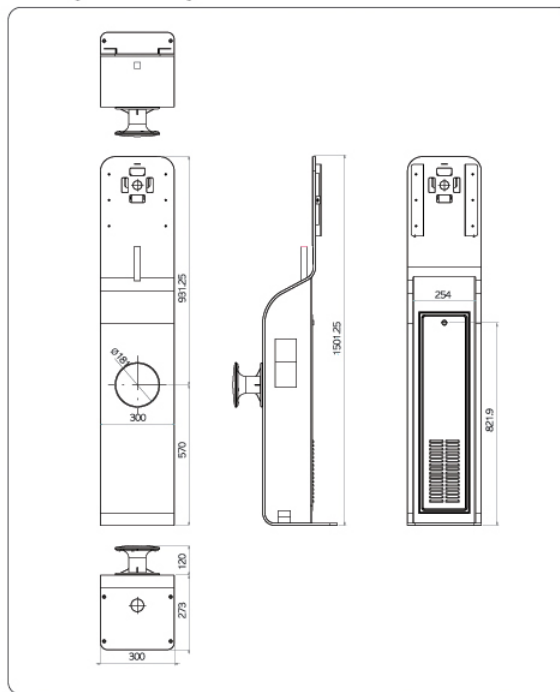
5-2 Detailed Size of this Product

On the Basis of UK-FC22S-SC01

Main Body



Charger Holding Stand



6. Malfunction and Solutions

This chapter describes information about malfunctions and solutions.

When this product does not work normally, please refer to this manual first of all. When a specific problem is not described, or certain stated information is not helpful, please inquire of ULVAC A/S without disassembling this product.

Some parts of this product are expendable.

Therefore, you can purchase new parts or replace damaged or worn-out parts with new ones through ULVAC A/S.

6-1 Information about Malfunction

When the system detects malfunction, the malfunction lamp on the top of this product will start flickering at interval of 2 seconds, depending on the kind of malfunction. Users can get simple information about each kind of malfunction by counting the number of flickering.

Number of Flickering Times	Malfunction Type	Presumed Cause	Solution
Lamp On	EMS Button Operated	Detected EMS Button	Turn the EMS button to the left for cancelation.
3	Pilot Line Open	Detected malfunction between EV and communication line	Disconnect the charging gun from EV and restart the system.
4	Pilot & GND Short-circuit	Detected malfunction in the communication line	Receive an engineer inspection through ULVAC A/S.
5	MC Welding	Detected internal part damage	Turn off the circuit breaker in the panel board and receive an engineer inspection through ULVAC A/S.
6	GND Line Open	Detected a problem in the earth circuit	Turn off the circuit breaker in the panel board and receive an engineer inspection through ULVAC A/S.
7	Abnormal Cable Voltage	Detected cable voltage in a state of this product not starting	Disconnect the charging gun from EV and restart the system.
8	Abnormal Pilot Communication	Detected malfunction in the charging cable part	Impossible for charging. Receive an engineer inspection through ULVAC A/S.
10	Abnormal Cable Current	Detected over-current in the charging cable	Disconnect the charging gun from EV and restart the system.
11	Abnormal Phase Conclusion	Detected malfunction in the primary electric phase conclusion	Check the R, S, T, N Phase and turn on the power. Receive an engineer inspection through ULVAC A/S.

6-2 Solutions to Other Problems

Problem	Presumed Cause	Solution
All the body lamps are off.	Is the system power OFF?	Turn on the system power switch on the right bottom of this product.
	Is the circuit breaker OFF in the panel board?	Turn on the circuit breaker in the panel board.
	Either of the causes above is not this case.	The product circuits have a problem. Please contact ULVAC A/S Center.
User authentication cannot be done.	Is noise heard from FAN at the back of this product?	FAN is an expendable part. Please contact ULVAC A/S Center.
	Is the connection loose between Stand (bracket) and Main Body?	There may be a damage in the connection part. Please contact ULVAC A/S Center.
Charging cannot get started.	Is your authentication card the same that you were provided when purchasing this product?	User authentication can be done only with the specific card provided by the manufacturer.
	Have you conducted user authentication to stop charging?	You need the same card that you tagged to start charging for user authentication.
Charging cannot get started.	Is the malfunction lamp flickering on the top of this product?	A problem took place in the system. Please refer to 6.1 'Information about Malfunction'.
	Did you press the Start button on the main body after connecting the charging gun to EV?	Press the Start button.
Charging gets stopped soon.	Is the EV battery fully charged?	When the EV battery is fully charged, charging is automatically finished.
	Isn't EV ready to get charged?	Check the state of EV. If you have found a problem, please inquire of the EV manufacturer.
Charging is not sufficient even after over 1 hour-charging.	Does the EV battery have a problem?	The use-by date of your EV battery is expired, or the battery has a problem. Please inquire of the EV manufacturer.
	Is the charging lamp flickering on the top of this product?	Charging has been stopped in process. Please restart the charging process.
	Is the EV power ON?	EV is consuming the batter power. Please turn off the EV power before charging.

Problem	Presumed Cause	Solution
Charging gets stopped over and over.	Does the charging-stop function work repetitively in EV?	Please check the state of EV.
	Have you failed to know the cause, yet?	Please inquire of either ULVAC A/S or the EV manufacturer.
The charging gun cannot get connected to EV.	Is there any problem in the connector between the charging gun and EV?	Check the connecting inlet of the EV charging gun. The charging gun fixture may be in operation.



Danger

This manual describes general malfunctions and solutions only.
When you face the events below, please inquire of ULVAC A/S.

- ▶ When you see a problem that is not stated in this manual
- ▶ When you judge that you cannot cope with the problem

The charger inspection must be done by an engineer approved by Korea ULVAC.
Installation or inspection done by an unauthorized person may lead to an unexpected accident.

7. Warranty

This chapter provides information about the warranty period and warranty services for this product manufactured by our company.

7-1 Warranty Regulations of ULVAC Korea

- This product must be installed by an engineer approved by our company.
- The customer is obliged to use and manage this product safely according to this manual.
- Warranty Period :

Our company guarantees that this product will work normally and smoothly for the warranty period, starting from the delivery date after you purchase this product.

- Warranty Details :

1. When any defect is found in this product during the warranty period, our company will repair it or change it to a normally-operating one according to our company regulations and consumer regulations.
2. All the warranty details in Article 1 are provided free of charge. Yet, the following cases will be excluded from warranty service free of charge.



Notice

Please keep the below in mind to sustain your precious assets safely.

- a. Damages caused by careless uses (mishandling, impact and excessive movement) and natural disasters (fire, salt, earthquake, storm and flood).
- b. Damages caused by customers' misuse or wrong uses.
- c. Damages caused by customers' careless transportation or movement in an improper way.
- d. Damages by using parts or expendables assured by our company.

- e. Damages caused when this product is remodeled by an unauthorized person or organization, except a person or an agency approved by our company.
 - f. When it is impossible to confirm the production or warranty of this product because the label indicating a model name and a manufacture number is removed or seriously damaged.
 - g. When additional hardware or system software is added to this product or this product is arbitrarily moved.
3. To perform a repair service, our company may replace old parts or components with new ones that work normally, and the old ones will belong to our company.

- Provision and Procedures of Warranty Services :

All the warranty services defined in this warranty regulation will be provided by a service agency approved by our company.

7-2 Free Services

When you find a defect in this product, you can get free services for 1 year, starting from the purchasing date.

- The free service warranty period starts from the delivery date.
- When you have made an additional contract about free warranty period with our company, the related contract terms will be applied.

Notice: When not our customer but other people or organizations use this product, our company may not provide free warranty services.

7-3 Paid Services

Even during the warranty period, our company may charge you for the following cases.

- Since charging cables and guns are expendable parts, you should purchase them.
- Since the surge protection device (lightening protective device) is an expendable part, you should purchase it. The cycle of replacement is 1 year.

※ Cases where free services turn into paid services

The following cases show that free warranty services change to paid services.

1. When requested to move the location of installation (from the very first installation place to another place) or found a defect caused by moving the place of installation.
2. When found a compatibility-related problem caused by adding another hardware or software not approved by our company.
3. Malfunctions caused by natural disasters (fire, salt, earthquake, storm and flood).
4. Malfunctions caused by your careless uses or mistakes (mishandling, impact and excessive movement).
5. Damages or loses caused by your arbitrarily disassembling this product.

**Notice**

Please be careful not to let foreign matter go inside the charger (main body and stand) and the charger holder. It may cause malfunction or fire.

6. Damages caused by foreign matter (water, drinks and paper).
7. Damages caused by using parts or expendables not approved by our company.
8. When you want to replace expendable parts with new ones.
9. Malfunctions caused when an unauthorized person has repaired or remodeled this product.

**How to get
Korea ULVAC
A/S**

Working Hours
9 a.m. to 6 p.m. Mon. Through Fri.
(Except holidays, Sat. and Sun.)

ULVAC Korea, Hansangil 5, Cheongbuk Myeon,
Pyeongtaek City, Geonggi Province, Zip Code 451-831
Contact at 031-684-2921 for A/S

ULVAC
ULVAC KOREA, Ltd.

Delivery Confirmation and Warranty

Product Manufacture Number	
Product Delivery Date	. .
Product Installation Place	
Product User (Representative Name)	
Warranty Period	. .

ULVAC Korea assures the quality of this product with the manufacture number above for the warranty period stated in this warranty.

ULVAC

ULVAC Korea, Hansangil 5, Cheonbuk Myeon,
Pyeongtaek City, Geonggi Province, Zip Code 17792

Telephone Number : 031-684-2921

Fax Number: 031-683-9033

www.ulvackorea.co.kr



- 1 Haed Office / tel. +82-31-683-2921 fax. +82-31-683-9033
5, Hansan-gil, Cheongbuk-myeon, Pyeongtaek-si, Gyeonggi-do, Korea
- 2 Seoul Office / tel. +82-2-3473-2920 fax. +82-2-3473-0885
5F, 315, Gangnam-daero, Seocho-gu, Seoul, Korea
- 3 Hyeongok Office / tel. +82-31-617-9500 fax. +82-31-617-9512
123, Hyeongoksandan-ro, Cheongbuk-myeon, Pyeongtaek-si, Gyeonggi-do, Korea
- 4 Busan Office / tel. +82-51-317-2920 fax. +82-51-317-2925
8F, 225, Saebyeok-ro, Sasang-gu, Busan, Korea
- 5 Icheon Office / tel. +82-31-631-2973 fax. +82-31-631-2975
4F, 2058, Gyeongchung-daero, Bubal-eup, Icheon-si, Gyeonggi-do, Korea
- 6 Tangjeong Office / tel. +82-41-532-2921 fax. +82-41-532-2924
4F, 791, Eumbong-ro, Eumbong-myeon, Asan-si, Chungcheongnam-do, Korea
- 7 Gumi Office / tel. +82-54-471-3567 fax. +82-54-471-3569
4F, 302-7, 3gongdan 1-ro, Gumi-si, Gyeongsangbuk-do, Korea
- 8 Daejeon Office / tel. +82-42-936-2920 fax. +82-42-936-2922
#408, 54, Techno jungang-ro, Yuseong-gu, Daejeon, Korea
- 9 Hwaseong Office / tel. +82-31-206-2921 fax. +82-31-206-3921
1369, Hyohaeng-ro, Hwaseong-si, Gyeonggi-do, Korea
- 10 Paju Office / tel. +82-312-8071-2920 fax. +82-31-8071-0626
6, LCD-ro, Wollong-myeon, Paju-si, Gyeonggi-do, Korea