Pion Power™

EV FLEX-AC CHARGER OWNER'S MANUAL

Version 1.3

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IMPORTANT SAFETY INSTRUCTIONS - WARNINGS

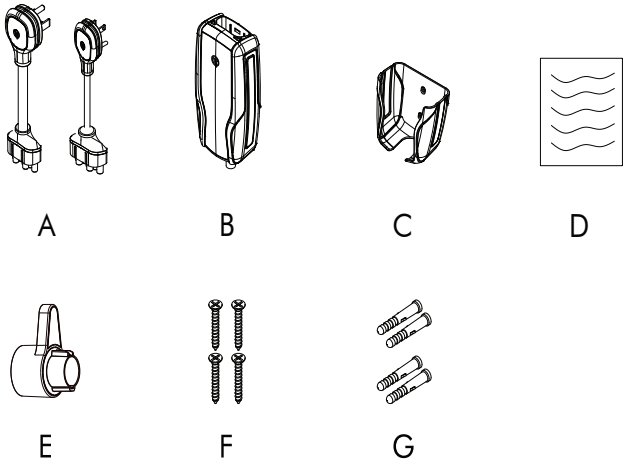
- INSTRUCTIONS IMPORTANTES CONCERNANT LA SÉCURITÉ CONSERVER CES INSTRUCTIONS.INSTRUCTIONS AYANT TRAIT À UN RISQUE D'INCENDIE OU DE CHOC ÉLECTRIQUE.
- ATTENTION Pour réduire le risque de choc électrique, brancher sur une prise correctement mise à la terre.
- ATTENTION Risque de choc électrique. Ne pas retirer le couvercle ni essayer d'ouvrir le boîtier.Aucune pièce interne réparable par l'utilisateur. Confier tout travail d'entretien ou de réparation à un technicien qualifié.
- AVERTISSEMENT Caractéristique de réarmement automatique incluse.
- AVERTISSEMENT Pour réduire le risque de choc électrique ou d'incendie, ne pas utiliser de rallonge avec cet appareil.
- AVERTISSEMENT Ce dispositif est destiné au chargement des véhicules ne nécessitant pas de ventilation au cours du chargement. Risque de choc électrique
- This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
- Warning: Read this entire document and follow all warnings and instructions before installing and using the EV Flex-AC Charger. Install and use this product only within the specified operating parameters as instructed in the manual. Failure to comply can lead to property damage, injury, or death, and will void the Limited Warranty.
- Warning: The EV Flex-AC Charger is not user-serviceable, do not attempt to open, disassemble, repair, service, or modify the product. Please contact the Pion Power Customer Service Department if assistance is needed, refer to page 12 for contact information.
- Warning: Always plug the EV Flex-AC Charger directly into the outlet with the supplied power adapter. Do not use extension cords, multi-outlet adapter, multi-plug, conversion plug or power strip to plug in the product.
- Warning: Always connect the EV Flex-AC Charger into a power outlet that is properly grounded.
- Warning: This device is intended only for charging vehicles not requiring ventilation during charging.
- Warning: Do not use the EV Flex-AC Charger if any component appears to be broken, cracked, frayed, or show any indication of damage or defect. Please contact the Pion Power Customer Service Department immediately, refer to page 12 for contact information.
- Warning: Do not use private power generators as a power source for the EV Flex-AC Charger to charge vehicles.
- Warning: Never disconnect the EV Flex-AC Charger's power adapter from the power outlet while the vehicle is still charging. Always stop the charging process, disconnect the charging handle from the vehicle, then disconnect the power adapter from the outlet.
- Warning: Always inspect the outlet before plugging the EV Flex-AC Charger in and ensure all prongs of the power adapter are fully inserted into the outlet. The power adapter may overheat and cause damage or injury if it is not inserted properly. Do not plug the product into an outlet that appears damaged, loose, or worn.
- Warning: Do not expose the EV Flex-AC Charger to any flammable, explosive, or combustible materials/vapors.
- Warning: Do not install or use the EV Flex-AC Charger near flammable, explosive, or combustible materials/vapors, or if exposed to severe rain, snow, thunderstorm, or any other inclement weather.

IMPORTANT SAFETY INSTRUCTIONS - WARNINGS

- Warning: If possible, avoid installing the EV Flex-AC Charger in direct sunlight.
- Warning: Handle all components of the EV Flex-AC Charger with care. Do not drop, drag, batter, twist, tangle, step on or exert strong force/impact on the Charger.
- Warning: Do not allow moisture, water, or debris to enter the openings of the EV Flex-AC Charger, especially the outlet, connecter or charging handle port.
- Warning: Do not plug the EV Flex-AC Charger into an outlet if it is submerged in water or covered in snow. If the product is already plugged in, turn off the breaker before unplugging the power adapter.
- Warning: Do not touch the connecters of the EV Flex-AC Charger power adapter or control box with your fingers or other objects, including wire, tools, or needles. Do not fold any component of the product by force or damage it with sharp objects. Do not insert foreign objects into the product.
- Warning: Install and mount the EV Flex-AC Charger in a position so it does not hang from the power outlet. The power outlet and adapter are not designed to support the weight of the EV Flex-AC Charger.
- Warning: Hang the EV Flex-AC Charger's charging cable on the supplied hook in a location that prevents obstruction of pedestrians, pets, vehicles, or other objects. Position it in such a way to prevent damaging or stressing the components. Do not subject the charging cable to excessive forces or impact, such as closing a garage door or driving over it.
- Warning: Operation of the EV Flex-AC Charger may affect the functionality of medical or implantable electronic devices, such as implantable cardiac pacemakers or implantable cardioverter defibrillators. Prior to using the product, consult with the electronic device manufacturer regarding potential effects that charging may have on such electronic devices.
- Warning: Take care in cleaning the EV Flex-AC Charger. It is recommended to unplug the EV Flex-AC Charger from the outlet first prior to cleaning. Use a soft cloth slightly damped with water or mild detergent to clean the surface of the EV Flex-AC Charger.
- Warning: The EV Flex-AC Charger has a built-in automatic CCID reset function.
- Warning: Do not use the EV Flex-AC Charger if the ambient temperature is outside of its operating temperature range of -22°F to 122°F (-30°C to 50°C).
- Warning: Store the EV Flex-AC Charger at a clean dry location with ambient temperature between -40°F and 185°F (-40°C and 85°C).
- Warning: The product features triple-layer overheating protection with temperature control unit in the control box and adapter.
- Warning: The product will automatically reduce the charging current if the temperature control unit reaches or exceeds 65°C. The product will automatically shut off if the temperature reaches 80°C or above. The product will automatically begin charging the vehicle again when the temperature control unit drops to 65°C or below.
- Warning: The EV Flex-AC Charger is compatible with the SAE J1772 specifications and can be used to charge battery electric and plug-in hybrid vehicles with SAE J1772 charging ports.
- Warning: Do not allow children to install or use the EV Flex-AC Charger. Children should be supervised when they are in the vicinity of the product during its operation.

BOX CONTENTS

Check the box to make sure you have all the components listed below (Picture 1).
If any parts are missing, please contact the Pion Power Customer Service Department: 416-898-5606 / support@pionpower.ca.



Picture 1.

Inside the boxes you'll find:

A. N5-15P adapter and N14-50P adapter

B. Charging station/control box

C. Wall-mount bracket

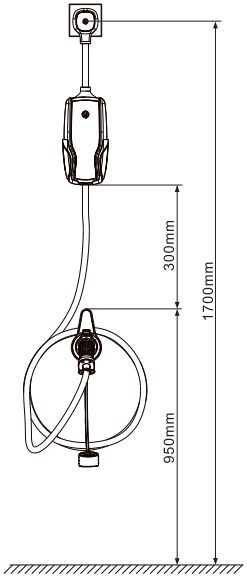
D. User manual

E. Charging handle holster and cable holder

F. M4*30 countersunk head tapping screws (for “c” and “e”)

G. M6*30 plastic expansion wall plugs screw anchor (for “c” and “e”)

For the recommended installation height of the Pion Power EV Flex-AC Charger please refer to Picture 2.

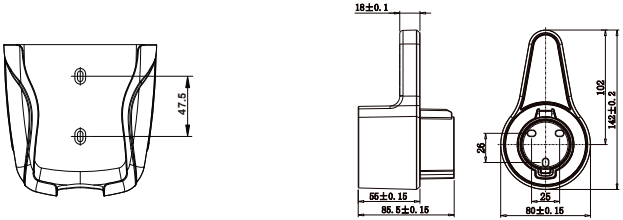


Picture 2.

INSTALLATION PROCEDURE

STEP 1

Locate the outlet you wish to wall-mount your EV Flex-AC Charger. The wall-mount bracket should be installed based on the measurements (in millimeters) shown below (Picture 3).



1. 2.

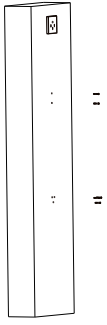
Picture 3.

1. Wall-mount bracket (**item C**) screw position
2. Charging handle holster and cable holder (**item E**) screw position

STEP 2

Based on the measurements in Step 1, drill two pilot holes for the wall-mount bracket and two pilot holes for the cable hook.

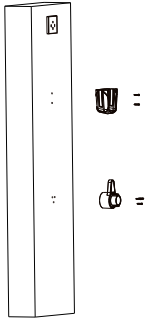
Place the M6*30 plastic expansion wall plugs screw anchors (**item G**) over each hole and firmly tap it in until it's flush with the wall. If you do not require wall anchors, please skip this step and proceed directly to Step 3.



STEP 3

Line up the wall-mount bracket (**item C**) and screw in the two M4*30 countersunk head tapping screws (**item F**).

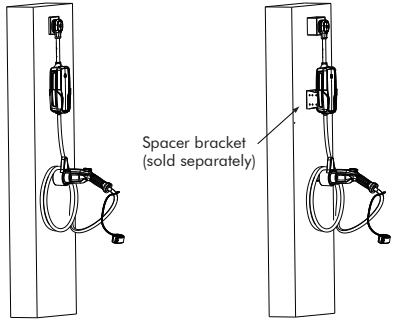
Line up the charging handle holster and cable holder (**item E**) and screw in the remaining two M4*30 countersunk head tapping screws (**item F**).



STEP 4

Depending on the outlet type (N5-15R or N14-50R), plug the corresponding adapter (**item A**) to the charging station/control box (**item B**) first. Install the charging station/control box (**item B**) on the wall-mount bracket (**item C**), and wrap the cable to your desired length on the charging handle holster and cable holder (**item E**). Plug the adapter into the wall outlet and wait for the charging station/control box (**item B**) to power on.

Note: The control box needs to be positioned so that it is directly beneath the power adapter when it is plugged in. If the outlet sticks out from the wall, an additional spacer bracket is available for purchase separately, adjustable for 1.5", 2 1/8" and 3" depth.



CONNECTING TO WI-FI NETWORK

Download the Pion Smart Charger App.

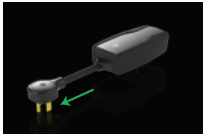
The Pion Smart Charger App is available to download for free on the Apple App Store and Google Play Store. The app can be found by searching for the "Pion Smart Charger" app. In addition, the app is also available for download at www.pionpower.ca.

Connecting to the Pion Power EV Flex-AC Charger

1. Connect the Pion Power EV Flex-AC Charger to an outlet, wait for the green light to begin flashing.
2. Each Pion Power EV Flex-AC Charger emits a WI-FI hotspot. To connect your EV Flex-AC Charger, open the WI-FI settings on your mobile device and connect to the "PionPower_xxxxxx" network ID with password "12345678".
3. Once connected to the network, open the Pion Smart Charger App, click "Set". Your mobile device is now directly connected to the EV Flex-AC Charger via its WI-FI hotspot.
4. Click the "Add" button on the top right corner to add a new device to your account. You can either scan the QR code at the back of the EV Flex-AC Charger or manually enter the UID of the device.
5. To connect the EV Flex-AC Charger to the WI-FI network of your choice, press the "add" icon on the top right corner and manually type in the network ID and password. Press "confirm" to connect to the network.
6. The app will automatically restart and return to the main menu. You will then be able to either connect to the EV Flex-AC Charger Wi-Fi hotspot or the local Wi-Fi network to use the app.

For more detailed instructions and other features of the Pion Smart Charger App, please visit www.pionpower.ca.

CHARGING YOUR VEHICLE



STEP 1

Install the appropriate power adapter onto the charger.

STEP 2

Plug power adapter into the wall outlet.

Note: Always inspect the Power Adapter for damage prior to each use.

STEP 3

Insert charging handle into the vehicle.

STEP 4

Start charging process.

STEP 5

Use the Pion Smart Charger App to monitor and control the EV Flex-AC Charger.

STEP 6

When vehicle is finished charging, unplug and put the charging handle into the wall-mounted holster.

TROUBLESHOOTING

LED Light	Status	Action
Red, green and blue (2 flashes)	Start-up sequence	No action required.
Green (solid)	Standby	No action required.
Green (1 flash)	Vehicle is plugged in	No action required.
Blue (1 flash)	Charging (less than 8A)	Charging, no action required.
Blue (2 flashes)	Charging (between 8A to 12A)	Charging, no action required.
Blue (3 flashes)	Charging (between 12A to 32A)	Charging, no action required.
Blue (4 flashes)	Charging (between 32A to 40A)	Charging, no action required.
Blue (solid)	Fully charged	Safely remove the charging handle from the vehicle.
Red (1 flash)	Abnormal CP signal/poor ground connection of charging handle and control board.	Please contact the Pion Power Customer Service Department.
Red (2 flashes)	Undervoltage Warning	Unplug the adapter from the outlet, and then plug it back in. If the problem persists, please contact the Pion Power Customer Service Department.

TROUBLESHOOTING

LED Light	Status	Action
Red (3 flashes)	Overvoltage Warning	Unplug the adapter from the outlet, and then plug it back in. If the problem persists, please contact the Pion Power Customer Service Department.
Red (4 flashes)	Overcurrent Warning	Unplug the charging handle from the vehicle, and then plug it back in. If the problem persists, please contact the Pion Power Customer Service Department.
Red (5 flashes)	Power Leak Warning	Unplug the charging handle from the vehicle, and then plug it back in. If the problem persists, please contact the Pion Power Customer Service Department.
Red (6 flashes)	Adapter Ground Fault Warning	Unplug the charging handle from the vehicle, and then plug it back in. If the problem persists, please contact the Pion Power Customer Service Department.
Red (7 flashes)	Adapter Overheat Warning	Please check if the adapter is properly plugged in the power outlet. Replace with a new power outlet if it is worn out. If the problem persists, please contact the Pion Power Customer Service Department.
Red (8 flashes)	Control Box Overheat Warning	Wait for the device to cool down and it will automatically resume charging. If the problem persists, please contact the Pion Power Customer Service Department.
Red (9 flashes)	Relay Warning	Unplug the charging handle from the vehicle, and then plug it back in. If the problem persists, please contact the Pion Power Customer Service Department.
Red (Constant flash)	MCU Warning	Unplug the adapter from the outlet, and then plug it back in. If the problem persists, please contact the Pion Power Customer Service Department.

Need further assistance? Please contact the Pion Power Customer Service Department: 416-898-5606 / support@pionpower.ca

PRODUCT SPECIFICATIONS

Model	EFAC40NA11		EFAC32NA11		EFAC16NA11	
Adapter	N5-15P	N14-50P	N5-15P	N14-50P	N5-15P	N14-50P
Input Voltage	120Vac	240Vac	120Vac	240Vac	120Vac	240Vac
Output Current	12A	40A	12A	32A	12A	16A
Max Output Power	1.4kW	9.6kW	1.4kW	7.6kW	1.4kW	3.8kW
Output Voltage	100-250 volt AC single -phase					
Input Frequency	60Hz					
Control Box Material	PC+PBT. Flame retardance UL94: 5VA					
Connecter & Handle Material	PC+PBT. Copper, silver-plated					
Cable Material	Copper + TPE					
Total Length	22ft (6.6 meters) with charging handle installed					
Impact Resistance	Able to withstand 3.3ft (1 meter) freefall drop and 4,409 lb (2,000kg) vehicle crush test without critical damage					
LED Indicator	Red/green/blue					
Operating Temperature	-22°F to 122°F (-30°C to 50°C)					
Working Humidity	5%~95% without condensation					
Working Altitude	<1.24 miles (2,000 meters)					
Enclosure Type	NEMA 4					

PRODUCT SPECIFICATIONS

Model	EFAC40NA11	EFAC32NA11	EFAC16NA11
Operating Environment	Indoor/Outdoor		
Cooling Method	Natural cooling		
Multiple Protection	Overvoltage protection, Undervoltage protection, Overheating protection, Overcurrent protection, Leakage protection, Grounding protection, Lightning protection, Fire and flame protection, Waterproof, Dust proof, Antistatic protection		
Safety Standard	UL 2594, UL 2231-1, UL 2231-2, CSA C22.2 No. 280, CSA-C22.2 No. 281.1, CSA-C22.2 No. 281.2		
Control Box Dimensions	9.05 x 4.45 x 2.42 inch		
Carrying Case Dimensions	15.35 x 13.78 x 5.12 inch	14.17 x 13.39 x 4.33 inch	
Net Weight	12.3 lb (5.6 kg)	8.8 lb (4.0 kg)	7.0 lb (3.2 kg)
Gross Weight	18.3 lb (8.3 kg)	14.3 lb (6.5 kg)	12.6 lb (5.7 kg)
External Packing	Carton		
Charging Handle/ Connecter Life Cycle	10,000 insertion/removal events (no load)		
Communication	Wi-Fi, Hotspot		
Application	Android/IOS		
Warranty	2-year limited warranty		

PRODUCT SPECIFICATIONS

Model	EFAC40NA12	EFAC32NA12	EFAC16NA12	EFAC12NA12
Adapter	N14-50P	N14-50P	N14-50P	N5-15P
Input Voltage	240Vac	240Vac	240Vac	120Vac
Output Current	40A	32A	16A	12A
Max Output Power	9.6kW	7.6kW	3.8kW	1.4kW
Output Voltage	100-250 volt AC single-phase			
Input Frequency	60Hz			
Control Box Material	PC+PBT. Flame retardance UL94: 5VA			
Handle	PC+PBT. Copper, silver-plated			
Cable Material	Copper + TPE			
Total Length	22ft (6.6 meters) with charging handle installed			
Impact Resistance	Able to withstand 3.3ft (1 meter) freefall drop and 4,409 lb (2,000kg) vehicle crush test without critical damage			
LED Indicator	Red/green/blue			
Operating Temperature	-22°F to 122°F (-30°C to 50°C)			
Working Humidity	5%~95% without condensation			
Working Altitude	<1.24 miles (2,000 meters)			

PRODUCT SPECIFICATIONS

Model	EFAC40NA12	EFAC32NA12	EFAC16NA12	EFAC12NA12
Enclosure Type	NEMA 4			
Operating Environment	Indoor/Outdoor			
Cooling Method	Natural cooling			
Multiple Protection	Overvoltage protection, Undervoltage protection, Overheating protection, Overcurrent protection, Leakage protection, Grounding protection, Lightning protection, Fire and flame protection, Waterproof, Dust proof, Antistatic protection			
Safety Standard	UL 2594, UL 2231-1, UL 2231-2, CSA C22.2 No. 280, CSA-C22.2 No. 281.1, CSA-C22.2 No. 281.2			
Control Box Dimensions	9.05 x 4.45 x 2.42 inch			
Carrying Case Dimensions	15.35 x 13.78 x 5.12 inch	14.17 x 13.39 x 4.33 inch		
Net Weight	12.3 lb (5.6 kg)	8.8 lb (4.0 kg)	7.0 lb (3.2 kg)	6.8 lb (3.1 kg)
Gross Weight	17.9 lb (8.1 kg)	13.9 lb (6.3 kg)	12.1 lb (5.5 kg)	11.9 lb (5.4 kg)
External Packing	Carton			
Charging Handle/ Connecter Life Cycle	10,000 insertion/removal events (no load)			
Communication	Wi-Fi, Hotspot			
Application	Android/IOS			
Warranty	2-year limited warranty			

LIMITED WARRANTY INFORMATION

Limited Warranty for Pion Power EV Flex-AC Charger

a. Pion Power Inc. offers a limited warranty for a period of 2 years to the original purchaser at retail of the Pion Power EV Flex-AC Charger. This limited warranty is not transferrable and is only available in the U.S.A. and Canada. Pion Power (corporate name) warrants this product will conform to our published specifications in effect as of the date of shipment and be free from material defects in material and workmanship.

b. We warrant that we shall perform all services using personnel of required skill, experience and qualifications and in a professional and workmanlike manner in accordance with generally recognized industry standards for similar services.

c. Except for the warranty provided in section (a), we make no warranty or condition whatsoever with respect to the Pion Power EV Flex-AC Charger, including, any warranty or condition of merchantability, fitness for a particular purpose or title; whether express or implied by law, course of dealing, course of performance, usage of trade or otherwise.

d. This limited warranty does not cover any defects or damage caused by normal wear, misuse, improper installation, external electric faults, improper service or maintenance, abuse, negligence or accident, including but not limited to:

- Failure to follow the instructions and warnings outlined in the user manual supplied with the EV Flex-AC Charger.
- Cosmetic damage such as scratches, chips, dents and cracks.
- Abuse, vandalism, damage or other defects caused by accidents, misuse or negligence.
- Disassembly or modification or repair of the EV Flex-AC Charger by an unauthorized party.
- Damage, alteration, removal, or anything that renders the EV Flex-AC Charger's serial numbers to be illegible.
- Damage to the EV Flex-AC Charger caused by hardware or software not supplied by Pion Power.
- Damage from extreme power surge, electromagnetic field or any acts of nature.
- Any other causes beyond the control of Pion Power Inc.

e. This limited warranty is void if the product is used after you give us such notice of defect; misused; subject to careless handling; is modified in any way; or has suffered physical damage or is repaired by anyone other than the factory or its authorized representative; or the defect arises because you failed to follow our oral or written instructions as to the storage, installation, commissioning, use or maintenance of the products.

f. If the product is found to be defective in material or workmanship during the warranty period, Pion Power will either repair or replace the product at its option, provided that any products are returned to Pion Power at the Purchaser's expense and in accordance with the Warranty Claims Procedure Policy below. At the discretion of Pion Power Inc., the repair parts and/or replacement products may either be new or reconditioned. The repair or replacement EV Flex-AC Charger will be warranted for the remainder of the original warranty period.

g. Pion Power Inc. makes no warranty other than this limited warranty and expressly excludes any implied warranty including any warranty for incidental or consequential damages, including any liability under any theory of law whether contract, tort or otherwise, even if Pion Power Inc. has been informed of the possibility of such damages. All claims related to the EV Flex-AC Charger will not exceed the price you paid for the product. Your statutory rights are not affected.

h. THIS IS YOUR SOLE AND EXCLUSIVE LIMITED WARRANTY. THE REMEDIES SET FORTH IN THIS WARRANT AND IN THE WARRANTY CLAIMS PROCEDURE POLICY SHALL BE YOUR SOLE AND EXCLUSIVE REMEDY AND OUR ENTIRE LIABILITY FOR ANY BREACH OF THIS LIMITED WARRANTY. NO ONE IS AUTHORIZED TO ALTER, MODIFY, AMEND, OR EXTEND THIS WARRANTY OR MAKE ANY OTHER WARRANTY ON BEHALF OF PION POWER. NO WARRANTIES APPLY AFTER THE WARRANTY PERIOD HAS EXPIRED. YOUR STATUTORY RIGHTS ARE NOT AFFECTED.

WARRANTY CLAIMS PROCEDURE POLICY - How to Submit a Warranty Claim

1. If you believe you have a defective EV Flex-AC Charger during the warranty term, contact Pion Power Customer Service at 416-898-5606 or to support@pionpower.ca and provide the following written information:
   - A detailed description of the defect or problem you are experiencing with the EV Flex-AC Charger.
   - The model number and serial number of the EV Flex-AC Charger.
   - Proof of original purchase.
   - Your contact information and return shipping address.
   - If warranty repair is deemed necessary, please complete and detach the Warranty Card on page 19 with all required information.

2. A Pion Power Inc. representative will troubleshoot the EV Flex-AC Charger and determine if there is a defect with the product and whether it is covered under this warranty.

3. If the defect with your EV Flex-AC Charger is determined by Pion Power Inc. to be covered by this warranty within the warranty term, please complete and detach the Warranty Card on page 19 and include the card when returning your EV Flex-AC Charger.

4. You are responsible to package the EV Flex-AC Charger and all its original components either in its original box or packaging that provide the EV Flex-AC Charger an equivalent level of protection as its original packaging and forward the unit together with proof of purchase and Warranty Card to the location which will be provided by Pion Power Customer Service. You will assume risk of any loss or damage to the EV Flex-AC Charger during shipment to Pion Power Inc.

5. If Pion Power Inc. determines the defective EV Flex-AC Charger is covered under this warranty, Pion Power Inc. will repair or replace the product and ship it back to you with a shipping carrier of our choice, at no charge to you.

6. If any EV Flex-AC Charger is determined by Pion Power Inc. to be ineligible for warranty service or falls outside the scope of this warranty, Pion Power Inc. will offer to repair or replace the product at your expense upon your approval, at Pion Power's prevailing parts and labour rates. Return shipping will also be arranged at your expense upon your approval.

WARRANTY CARD

Customer Information

Full Name: _____ Phone/Mobile Number: _____

Return Address: _____ Email: _____

Product Information

Model: _____ Purchase Date (YYYY/MM/DD): _____

Serial Number: _____

_____

To be Completed by Repair Center:

Repair Date	Repair Center Name	Fault Description & Repair Status	Completion Date	Repair Center Stamp

FCC warning:
Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
-Reorient or relocate the receiving antenna.
-Increase the separation between the equipment and receiver.
-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-Consult the dealer or an experienced radio/TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.