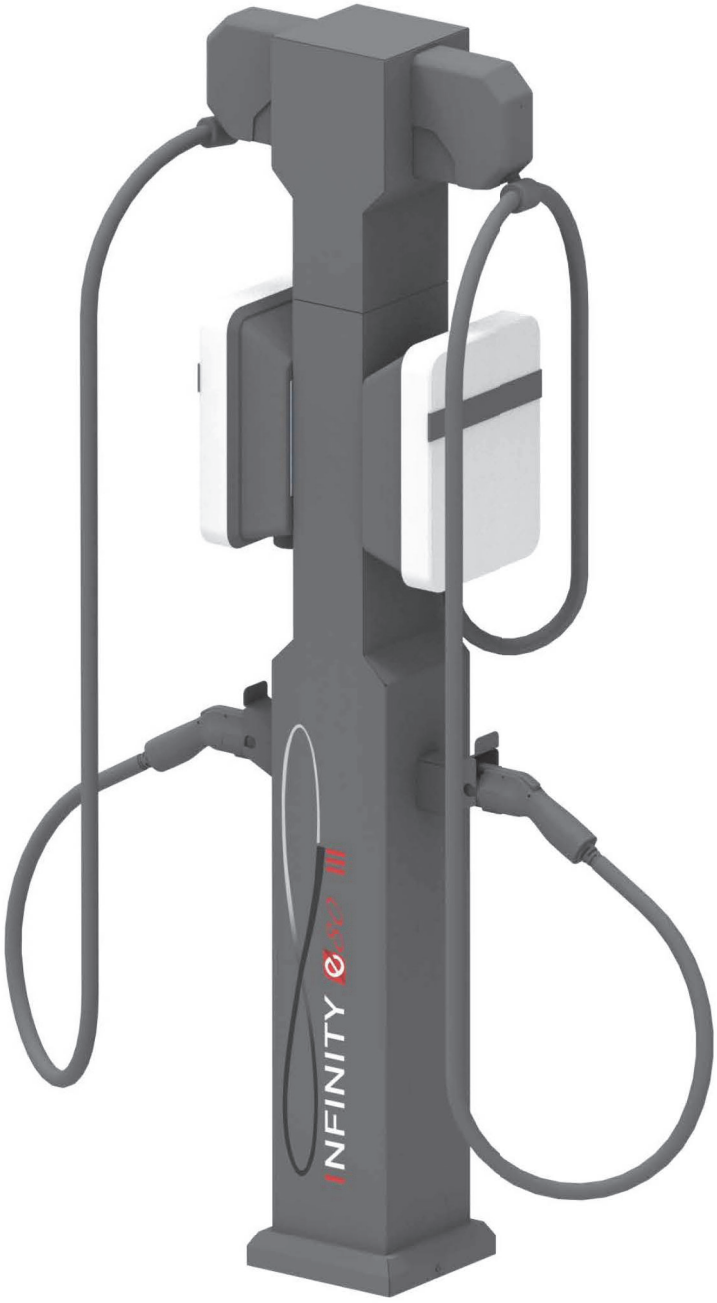
RMPAC

INFINITY e80

Infinity Series AC Commercial Charging Station

Specifications and Ordering Information



OPT CABLE MANANGEMENT

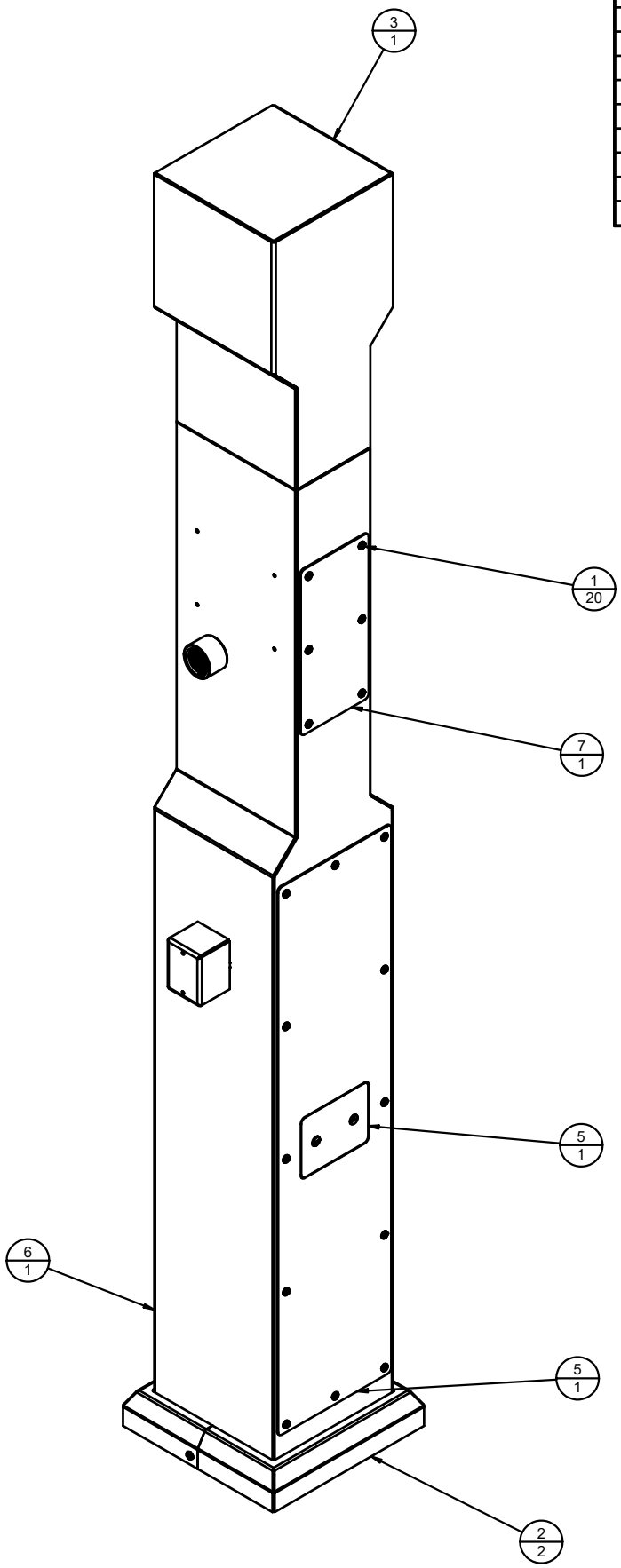
Ordering Information

New products can be ordered from the chart below. Replacement parts and services can be ordered through customer service representatives.

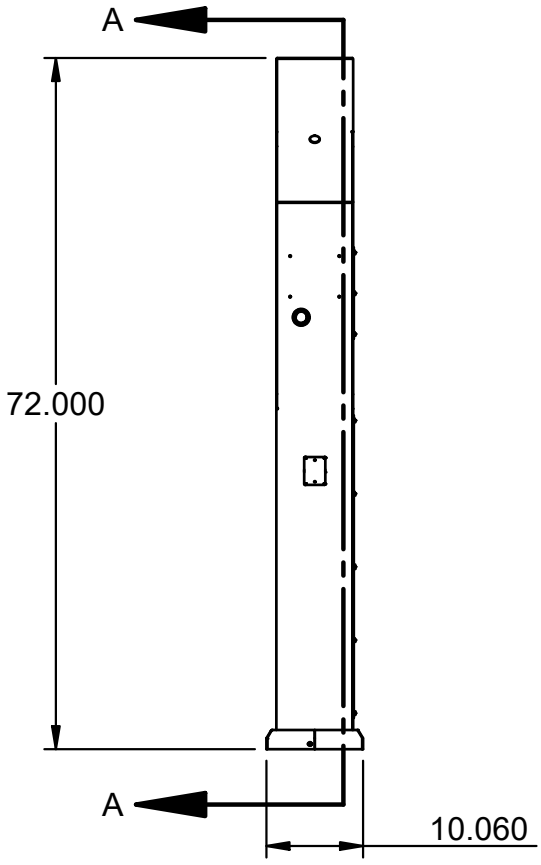
Level 2: Infinity Series Model Selection

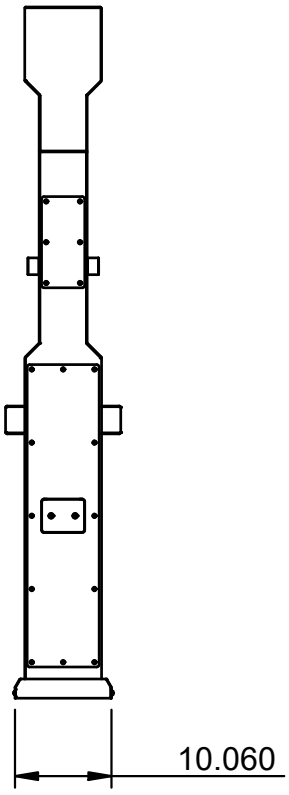
Model Type	Product Description	Part No.
Level 2 AC	80 Amp duel Charging System w/ Complete Pedestal Assembly with cable management / Chargie charger installed	610-000034
	80 Amp Single Charging System w/ Complete Pedestal Assembly	610-000025
	50 Amp duel Charging System w/ Complete Pedestal Assembly	610-000018
	50 Amp Single Charging System w/ Complete Pedestal Assembly	610-000026
	Options	
	Standard Bollard Set, EV Pedestal Square	650-000001
	Payment System Hardware Kit	650-000001
	Overhead Light Retro Kit	650-000014
	Overhead Cable management Kit	650-000015
	EV In-Ground Mounting Base	650-000010
	EV Mounting Plate for RMPAC Pedestal	630-000098
Software	RMPAC Charger Monitoring Software	(Sales Representative)

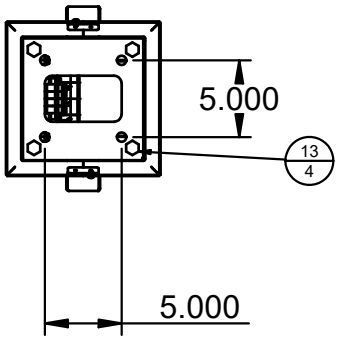
Item	Part Number	Description	Quantity
1	0144893	PAN HEAD SCREW, #10-32 X 3/8" LG, THREAD CUTTING	20
2	630-000075	SKIRT WELDMENT	2
3	630-000076	PEDASTAL TOP WELDMENT	1
4	630-000077	PANEL ASSEMBLY	1
5	630-000079	COVER PANEL LOWER W/ACCESS	1
6	630-000116	PEDASTAL WELDMENT- LITE-ON	1
7	640-000411	COVER PANEL- UPPER	1
8*	8694K16-23	EDPM STRIP- 1/2" W X 1/8" T	1
9*	8694K16-28	EDPM STRIP- 1/2" W X 1/8" T	1
10*	8694K16-78	EDPM STRIP- 1/2" W X 1/8" T	1
11	91831A030	5/16-18 Nylon-Insert Locknut SST	2
12	91831A127	LOCKNUT, 3/8"-16, SST	6
13	IL40-6X2-HX-SL	LEVELING FOOT 3/8-16 X 2" LONG	4

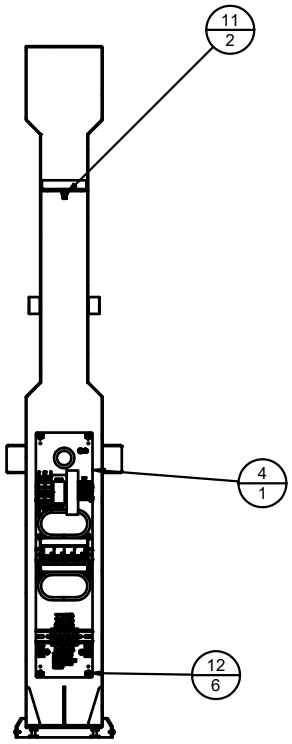


EV DUAL LITE-ON CHARGER, PEDESTAL, 80 AMP





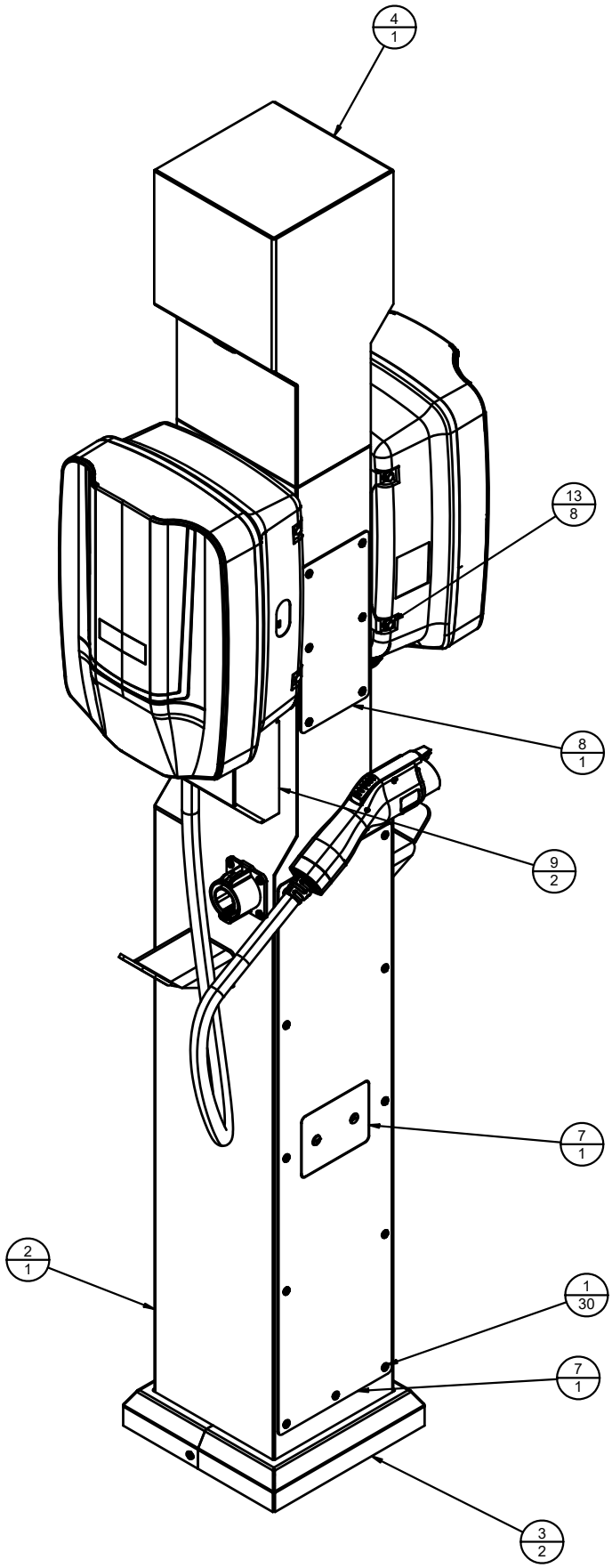


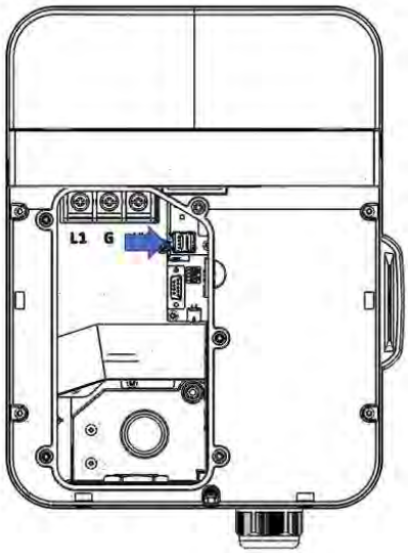


SECTION A-A

EV DUAL LITE-ON CHARGER, PEDESTAL, 80 AMP

Item	Part Number	Description	Quantity
1	0144893	PAN HEAD SCREW, #10-32 X 3/8" LG, THREAD CUTTING	30
2	630-000074	PEDASTAL WELDMENT	1
3	630-000075	SKIRT WELDMENT	2
4	630-000076	PEDASTAL TOP WELDMENT	1
5	630-000077	PANEL ASSEMBLY	1
6	630-000078	PAYMENT COVER WELDMENT	1
7	630-000079	COVER PANEL LOWER W/ACCESS	1
8	640-000411	COVER PANEL- UPPER	1
9	640-000412	COVER	2
10*	8694K16-23	EDPM STRIP- 1/2" W X 1/8" T	1
11*	8694K16-28	EDPM STRIP- 1/2" W X 1/8" T	1
12*	8694K16-78	EDPM STRIP- 1/2" W X 1/8" T	1
13	90166A143	FLANGED HEX HEAD SCREW, M6 X 10MM LG, SST	8
14	91831A009	LOCKNUT, #8-32, SST	4
15	91831A030	5/16-18 Nylon-Insert Locknut SST	2
16	91831A127	LOCKNUT, 3/8"-16, SST	6
17	IL40-6X2-HX-SL	LEVELING FOOT 3/8-16 X 2" LONG	4

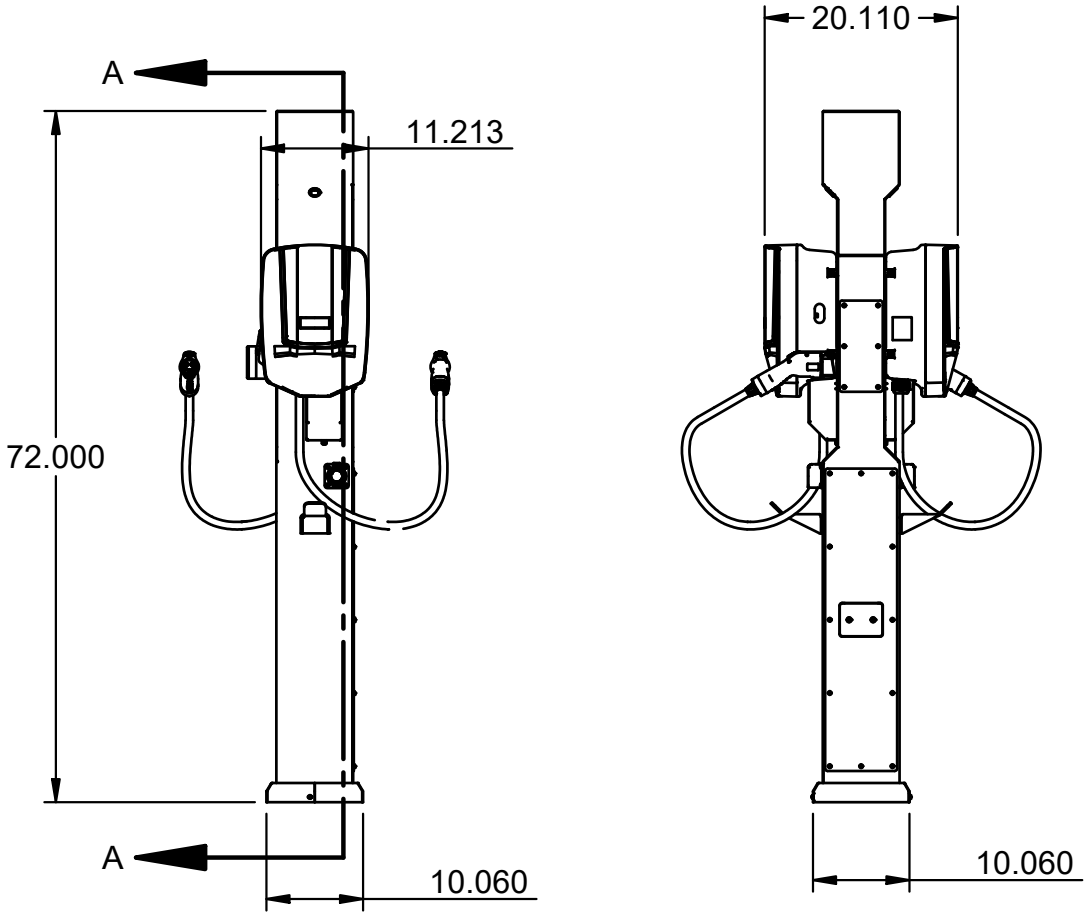


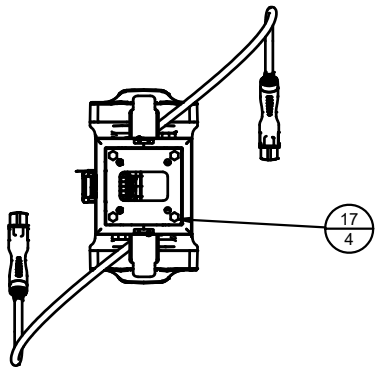


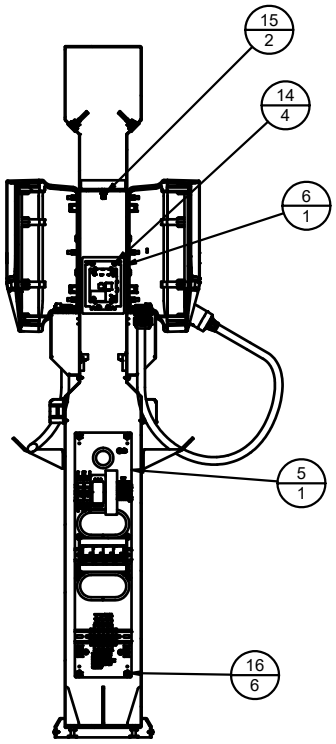
US Type Charger-80A (Gen2)

**Charger registered and listed under the BPA with Chargie and meets FEDRamp network compliance requirements.

EV DUAL CHARGER, PEDESTAL, 50/80 AMP



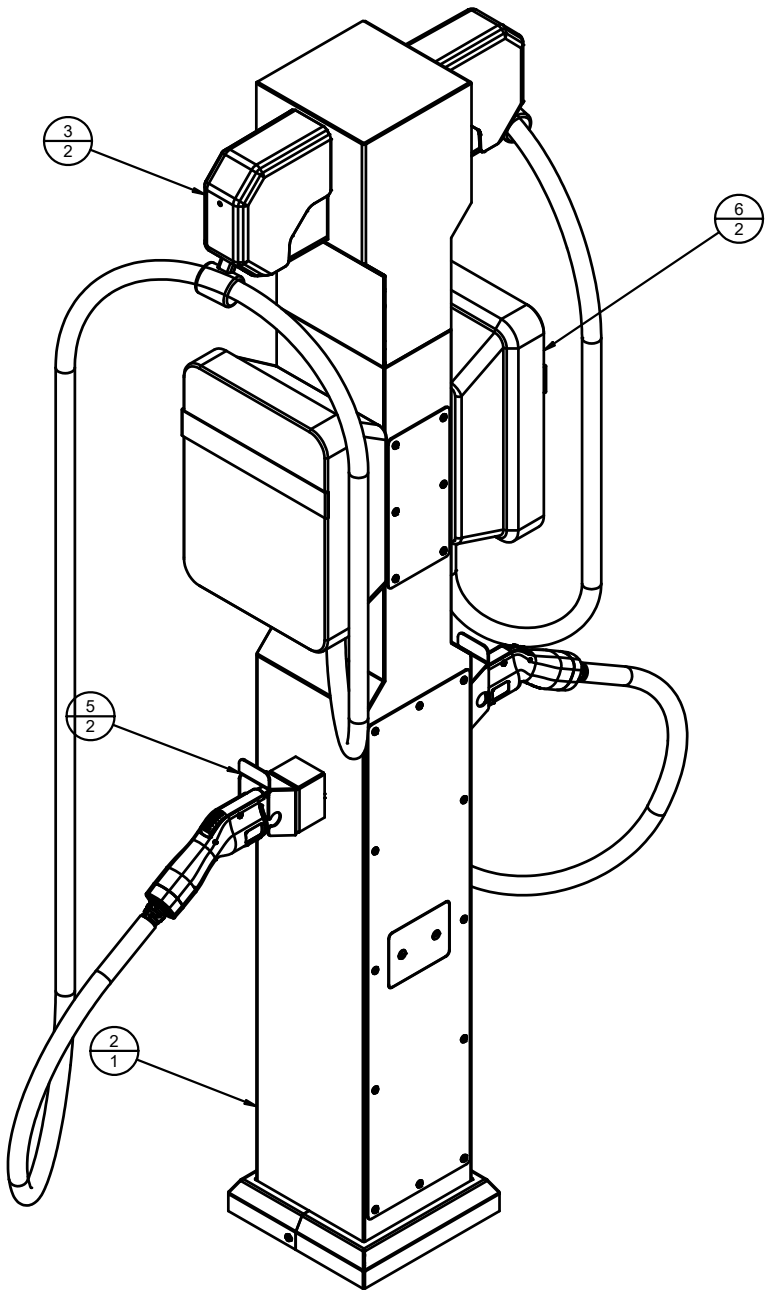




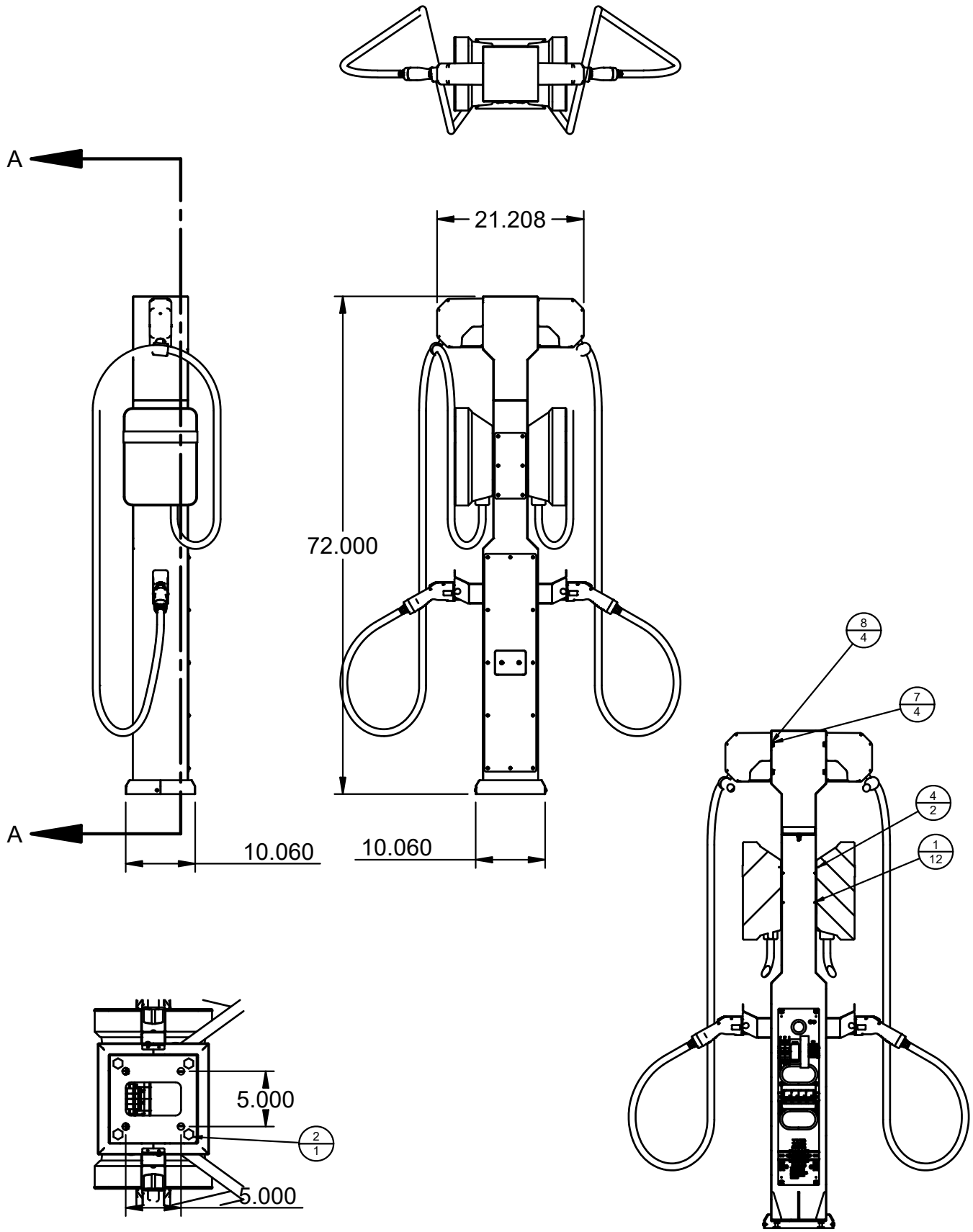
SECTION A-A

EV DUAL CHARGER, PEDESTAL, 50/80 AMP

Item	Part Number	Description	Quantity
1	0144893	PAN HEAD SCREW, #10-32 X 3/8" LG, THREAD CUTTING	12
2	620-000118	RMPAC DUAL CHARGER PEDESTAL PLAIN, 80 AMP	1
3	650-000018	MOBILITY1 EV CABLE RETRACTOR	2
4	650-000019	MOUNTING PLATE	2
5	650-000020	HOLDER BRACKET	2
6	650-000021	CHARGIE CHARGER 80A	2
7	92240A622	HHH3/8-16x.75-188/PL-FT - SST HEX HEAD CAP SCREW	4
8	94709A418	SEALING WASHER, 3/8" SIZE, SST/NEO	4



RMPAC DUAL CHARGER PEDESTAL ASSEMBLY, PLAIN, 80 AMP



RMPAC DUAL CHARGER PEDESTAL ASSEMBLY, PLAIN, 80 AMP

Products Specification				
Product				
Model		80AAS		32AAS
Type		Wall Mount / With Stand		
Input	Voltage	200~240VAC, Single Phase, L+PE+N		
	Frequency	50/60Hz		
	Current	80A	50A	32A
Output	Voltage	200~240VAC		
	Current	80A	50A	32A
	Connector	SAE J1772 (80A)	SAE J1772 (50A)	SAE J1772 (32A)
User Interface	Display	OLED 2.89”		
	Push Buttons	Emergency Stop/Reset		
	User Authentication	OCPP 1.6J / RFID card reader / Backend		
Network Connection		Ethernet		
Environmental	Operating Temp.	-30°C ~ +50°C / -22°F ~ +122°F		
	Storage Temp.	-30°C ~ +70°C / -22°F ~ +158°F		
	Humidity	< 95% (Non-condensing)		
	Altitude	< 2000m / < 6561ft		
	Ingress Protection	IP55 / NEMA TYPE 3R		
	Enclosure Protection	IK10		
	Cooling	Natural Cooling		
Mechanical	Dimension (W x D x H)	285mm x 194mm x 402mm / 11.2in x 7.6in x 15.8in		
	Weight	< 6kg / < 13.25lb (without plug)		
	Cable Length	> 5.5m / >18ft		
Protection		Over voltage/Under voltage/Over current/Surge/ Residual current/Ground fault/Over temperature		
Certification		IEC 61851-1,IEC 61851-21-2, CNS 15511		

General Information

Safety Instructions

User's Responsibility

The basic rules of safety set forth in this manual are to be used as a guideline for the safe operation of Advantech equipment. This safety information, along with maintenance and operational instructions for each specific machine or system, make up the operation and maintenance manual. These instructions attempt to cover the foreseeable operating hazards. Therefore, all personnel must be careful to follow instructions, obtain the proper training for safe operation of this equipment, not misuse the equipment, and be aware of hazards when the equipment is being operated. All personnel who operate, service, maintain, or are involved with this equipment in any way should become familiar with the information in this "safety" section before proceeding.

It is the customer's responsibility to make certain that the procedures set forth in this manual are followed and that all people involved in operating the equipment are thoroughly briefed about the possible hazards involved when the equipment is running. Should any significant deviation or change in use from the original specifications be required, appropriate safe operating procedures should be established for the operation of the machine. It is strongly recommended that you contact Advantech to make certain that the machine can be converted to the new use and appropriate instructions are prepared for its operation.

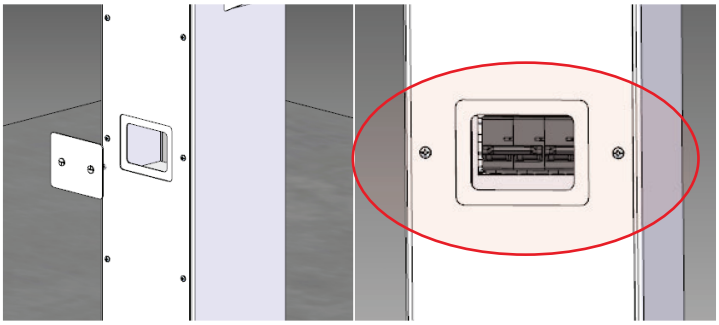
Advantech equipment is designed and manufactured with consideration and care for generally accepted safety standards. However, like any mechanical or electrical device, the proper and safe performance of this equipment depends upon the sound judgment of properly trained personnel while operating, maintaining, and servicing this equipment.

For your protection, and the protection of others, learn and follow the safety rules outlined in this manual. Observe all **danger, warning, caution** and **instruction signs** on the equipment and in the operation and maintenance manual(s) and act accordingly. Form safe working habits by reading and following all procedures and guidelines in this manual and using good judgment when carrying out these procedures. Always pre-plan your work steps and ask questions when you are not sure of the steps. Keep these instructions and the applicable operation and maintenance manual(s) available for review at all times.

Safety Design Features

The following safety design features are common on all Advantech manufactured equipment:

A. **Electrical Lock Out:** A "main disconnect switch or switches" are incorporated on Advantech main control enclosures. The function of the main disconnect switch is to provide a means of disconnecting customer supplied electrical power from the equipment when performing set up, maintenance, or cleaning services. Electrical power is disconnected and locked out by placing the main disconnect switch in the OFF position and securing it in that position using a padlock and identification tag for each individual working on the machinery. Electrical power can be re-connected by removing all of the padlock/identification tags and placing the main disconnect switch in the ON position.



EV main disconnect switches

B. **Emergency Stop Palm buttons:** Emergency stop palm buttons have been incorporated on all Advantech equipment. Emergency stop palm buttons are red, mushroom head, push-pull palm buttons which are surrounded by a yellow ring. The purpose of emergency stop palm buttons is to provide a means of shutting down all the equipment drives in the event of an emergency. Pushing in an emergency stop palm button will interrupt electrical power to the equipment. Pulling out the palm button will restore electrical power to the equipment control circuits without re-starting the equipment drives (if previously running).

CAUTION

Emergency stop palm buttons are not to be used for *normal shutdown,* or as a substitute for properly disconnecting and locking out electrical power. Usage of the Emergency stop palm buttons for normal shutdown may cause equipment damage as the emergency circuit drops all electrical power to the equipment, rather than using the designed shutdown sequence.

C. **Safety Guards and Interlocks:** Safety guards are provided on all Advantech equipment where foreseeable potential hazards may be present to the operator or other personnel. The purpose of safety guards is to provide a physical barrier, which will prevent the personnel from gaining access to hazardous areas on the equipment when the equipment is running. Two (2) types of safety guards are installed on Advantech equipment:

(1) **Permanent Safety Guards:** Permanent safety guards are installed on the equipment using fasteners, which cannot be removed without tools. Removal of these safety guards should only be required for maintenance purposes by qualified maintenance personnel. Always disconnect and lock out electrical power to the equipment before removing permanent safety guards. Always make sure that permanent safety guards are replaced and secured to the equipment using the same type of fasteners before operating the equipment.

(2) **Interlocked Safety Guards:** Safety guards that can be removed or lifted (without tools) to gain access for set up, maintenance, or cleaning purposes are policed by electrical interlocks. Removing or lifting a guard policed by an electrical interlock will interrupt electrical power to the equipment control circuits, disabling or shutting down the drive for that piece of equipment. Replacing the guard will restore electrical power to the equipment drives, but will not automatically re-start the drives. The operator must re-start the drives at the operator control station.

Warning

The electrical devices on interlocked safety guards must not be tampered with or by-passed in order to run the equipment with the corresponding safety guard removed or lifted.

D. **Safety Labels:** Safety labels are installed on Advantech equipment to identify potential hazard areas on the equipment and to instruct personnel on how to properly avoid the hazard. To ensure that this important message is properly communicated, each safety label utilizes a format that offers the following information on the potential hazard:

(1) **Signal Word:** Located at the top of each safety label is a signal word (DANGER, WARNING or CAUTION) which identifies how serious the potential hazard is and the probability that an injury will occur if the instructions on the safety label are not followed. Each hazard seriousness level (DANGER, WARNING and CAUTION) is shown and explained on page 8. Some safety labels are of the ISO design and will not have a signal word. They will however, have a color background of the same meaning as typical signal words.

(2) **Pictorial:** A pictorial is located on each safety label. This pictorial illustrates the potential hazard and resulting injuries if the instructions on the safety label are not followed. Some safety labels may not use pictorials because of space restrictions.

(3) **Message:** Located on each safety label is a concise statement of what action or precautionary measures to take to avoid the potential hazard. Some safety labels are of the ISO design and will not have a message.

NOTE: *A part number is located at the bottom of the safety label. If the safety label becomes damaged or detached from the equipment, use this identification number to re-order another safety label.*

Operational Safety

A. **Operating Zone:** An operating zone, identifying the operator control location, should be established by the owner around all installed equipment. This can be achieved by a brightly painted guarding bollard, warning stripes, or other designated zones. Only authorized personnel should be within the operating zone when the control circuits are energized, or the equipment is running. Keep the operating zone free and clear of obstructions which may interfere with the safe operation of the equipment.

B. **Safety Inspection:** The following safety inspections should be performed before starting the equipment and after shutting down the equipment. Also, refer to any additional "pre-operation checkout" instructions included within each equipment manual.

(1) Before Starting Equipment:
   a. Ensure that all covers, and safety devices are installed and operative.
   b. Remove any materials, tools, or other foreign objects from the operating zone that could cause injury to personnel or damage the equipment.
   d. Make certain the unit is in operating condition and all cables are attached.
   e. Make certain all indicating lights and other safety devices or indicators are in working order as described in the operation and maintenance manual(s).

(2) After Shut Down:
   a. Make certain utilities such as electrical power sources are turned off as described in the operation and maintenance manual(s).

C. **Operation Guidelines:**

(1) Do not operate this equipment until you:
   a. Read and thoroughly understand the equipment operating instructions contained in the equipment operating guide and/or operation and maintenance manual.
   b. Have had previous training on the operation of the equipment as needed.
   c. Understand operator responsibilities.

(2) Ensure that all safety covers are in place prior to operating this equipment.

(4) Ensure that the equipment and all safety devices are in place and fully operational. Never operate this equipment if a machine component is faulty/damaged or while a safety device is removed, disconnected or by-passed.

(5) Read and follow the instructions on the safety labels affixed to the equipment. Safety labels are placed on equipment where a hazardous condition may exist to help you avoid personal injury. They are there for your protection and must not be removed or defaced. Torn or worn labels should be replaced by calling Advantech with the part number on the lower right-hand corner of each safety label.

NOTE: *Each safety label affixed to the equipment is shown and explained in the equipment operation and maintenance manual.*

(9) Keep operating zone free of obstacles that could cause a person to trip or fall towards operating equipment. Never sit or stand on anything that might cause you to fall against the equipment.

(10) Know the normal operation and emergency shutdown procedures for the equipment. The location of the EMERGENCY STOP palm buttons is identified in the equipment operation and maintenance manual.

CAUTION

Emergency stop palm buttons are not to be used for <u>normal shutdown</u>, or as a substitute for properly disconnecting and locking out electrical power. Usage of the emergency stop palm buttons for normal shutdown can cause equipment damage as the emergency circuit drops all electrical power to the equipment, rather than using the designed shutdown sequence.

Cleaning Safety

A. Turn off disconnect switch for main electrical power prior to performing any cleaning within procedures. Ensure that all personnel performing cleaning operations on the equipment follow all safety procedures.

B. Always clean up spills around the machine as soon as possible.

C. Use only the methods and cleaning solutions specified in the equipment cleaning instructions within the operation and maintenance manual(s). Do not use toxic and/or flammable solvents to clean equipment.

D. Unless specified, the equipment is NOT designed for water wash down. Keep all electrical panel covers closed and secured and avoid spraying water or steam in the direct area of electrical components. In addition, avoid spraying water or steam in any component. This may cause premature failure or damage.

Service and Maintenance Safety

A. **<u>General Service and Maintenance Safety:</u>**

(1) Read and follow the "OPERATIONAL SAFETY" instructions covered in section 3.

(2) All service and maintenance of this equipment must be performed by trained and authorized service and maintenance personnel.

(3) Electrical power to the unit should be disconnected and the electrical power source locked out unless they are absolutely required for specific maintenance being performed.

<u>NOTE:</u> *Additional barriers and notices should be displayed when maintenance is being done on a machine, which is not locked out and tagged.*

(6) Periodically check the operation of all EMERGENCY STOP palm buttons by pushing them in and pulling them out. Repair or replace if found faulty.

(8) Always use the proper tool for the as required by professional service personel.

B. **Electrical Safety:**

(1) All electrical/electronic maintenance should be performed by trained and authorized electricians only.

(2) Always approach electrical equipment with caution, and assume that the circuit is *live* until proven otherwise. Before servicing or cleaning any equipment, remove the electrical power from the control circuit and equipment and lock it out. Electrical power may be removed from a circuit by placing the disconnect switch or breaker in the open (OFF) position.

NOTE: *A properly locked out disconnect switch will prevent anyone from turning on the electrical power while the equipment is being worked on.*

(3) Make certain that electrical power is removed from the control circuit and equipment by using the proper test equipment. (Test equipment must be checked at regular intervals to ensure that it is operating properly.)

(4) Replace fuses only when the electrical power is disconnected and locked out, using the electrical schematics to ensure that the correct sizes are installed.

(5) Covers should be closed at all times, except when checking out the electrical equipment or wiring. After closing the panel door, make certain that the disconnect handle (on those panels applicable) is operating properly.

(7) Before applying power to any equipment, ensure that all covers on electrical panels are closed and fastened, and that all personnel are clear of the equipment.

Hazard Level Identification

Definitions for identifying the various hazard levels shown on safety labels are provided below with their respective signal words/symbols:

The use of this red symbol with the word "DANGER" signifies an immediate hazard with a high likelihood of severe personal injury or death if instructions, including recommended precautions, are not followed.

The use of this orange symbol with the word "WARNING" signifies the presence of hazards or unsafe practices which could result in severe personal injury or death, if instructions, including recommended precautions, are not followed.

New Equipment Arrival

Receiving and Inspection

Advantech equipment is dry run and inspected prior to shipment and upon leaving the factory is well crated. Advantech cannot, however, guarantee safe arrival at the user's plant. Therefore, upon receipt, check the received items against the packing list for missing parts and for damage. Check the packing material for small parts.

If there are any parts missing or if this equipment is damaged, a claim must be filed against the carrier within five days after delivery (in USA). Contact Advantech if shipping information is required for handling claims.

Finished unit

Installation

It is highly recommended that qualified technicians supervise and/or perform installation of this equipment. This will ensure safe and trouble-free operation.

A. Installing of the equipment includes assembly, location, mounting and leveling and (Connection to the customer supplied electrical.
B. Cleaning the equipment and removing any foreign material, which may have accumulated during shipping and installation, off all product contact surfaces prior to running product.
C. Checking all connections and fasteners prior to service. Items can shift or loosen during transportation.
E. Training selected personnel as required.

Step 1: Unpackage and remove any bolts or screws used in securing unit to skid.

Step 2: Locate the concrete lag template and use this to pre-drill and install lag screws. Check local codes for length needed for compliance. Make sure to locate the power conduit and place over for power wires to device. (see figure 1).

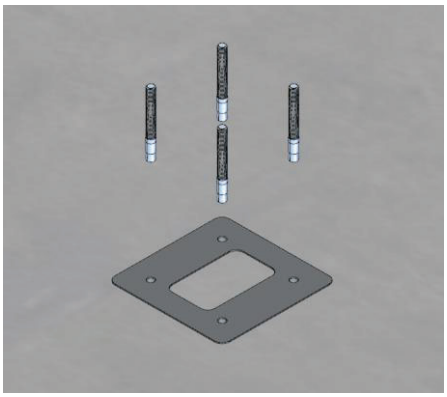


Figure 1, lag installation

Step 2: Place unit over mounting lags and place nuts on the bolts. Do not tighten completely. (See figure 2).

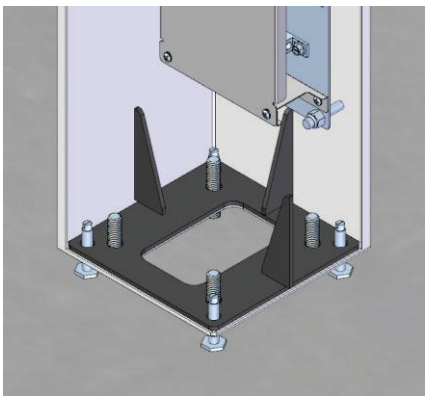


Figure 2, unit installation

Step 3: With a level and flat head screwdriver level the unit completely. (See figure 3).

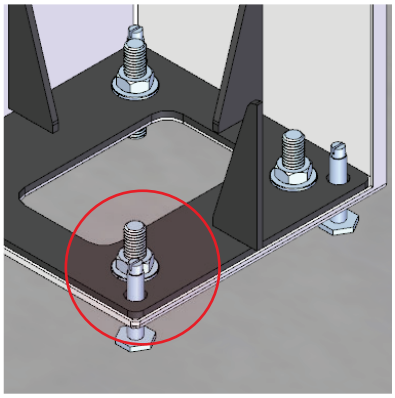


Figure 3, Level with leveling screws provided.
After unit is level, tighten mounting bolts completely.

Step 4: Install lower beauty ring on the bottom of the base and fasten with provided screws.

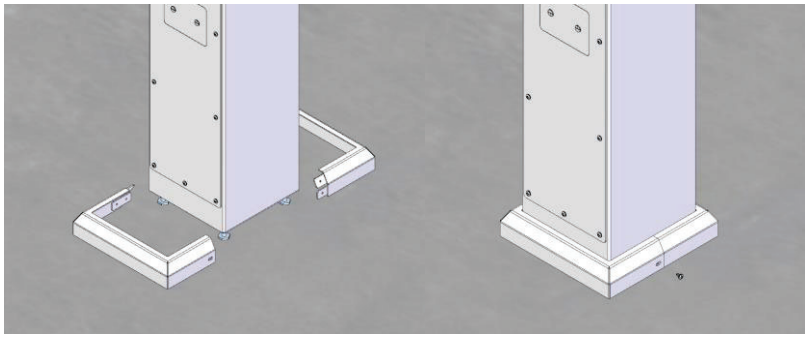
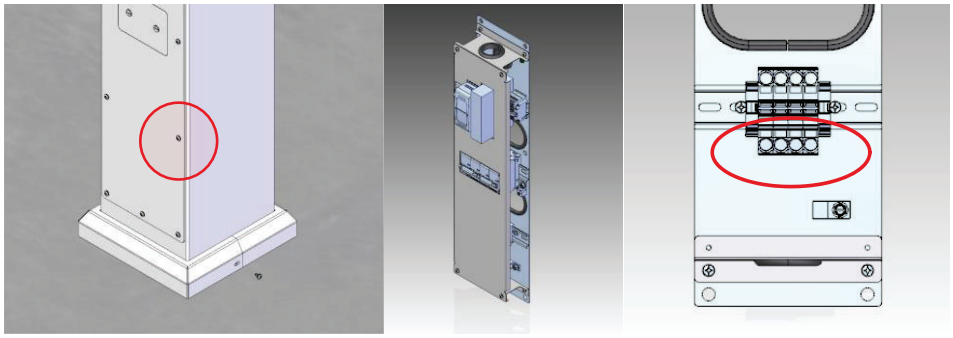


Figure 4, Lower beauty ring installation

Step 5: remove the electrical cover to gain access to electrical panel.



(1) **Make sure the main breaker is in the off position.**
(2) **Remove electrical cover.**
(3) **Remove inner panel cover.**
(4) **Wire to customer terminal block per electrical print.**
(5) **Replace all covers before turning on power.**

Step 5: Refer to charger manual for instructions on programming/setup using charging head.

⚠ Fuseless switch to charger cable specification recommendations:

Maximum Current Setting	Circuit Breaker Capacity Setting	Cable Specifications	Euro Terminals
32A	40A	XLPE5.5mm^2 (10AWG)	ET6-18
50A	75A	XLPE14mm^2 (6AWG)	ET16-18
80A	100A	XLPE22mm^2 (4AWG)	ET25-18

⚠ Cable Construction Recommendations: Remove cable skin length = 18mm, recommended locking torque T = 3.8 N·m.

⚠ Network cable: Cat 5e FTP (Covered Network Cable) with RJ45, unprotected crimped crystal head.

⚠ The charger must be connected back to the main power system grounding circuit. Please refer to the local electrical regulations for grounding system standards.

⚠ 1-1/4" metal hose holder for 1-1/4" hose.

RMPAC

INFINITY e80

Infinity Series AC Commercial Charging Station

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