



OPERATING INSTRUCTIONS AND REPLACEMENT PARTS



AL2 SERIES
DC POWERED AREA LIGHTING SYSTEMS



WARNING: This product contains a sealed lead acid battery which can expose you to chemicals including **Lead and Sulfuric Acid**, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, visit www.P65Warnings.ca.gov.

Patent Pending

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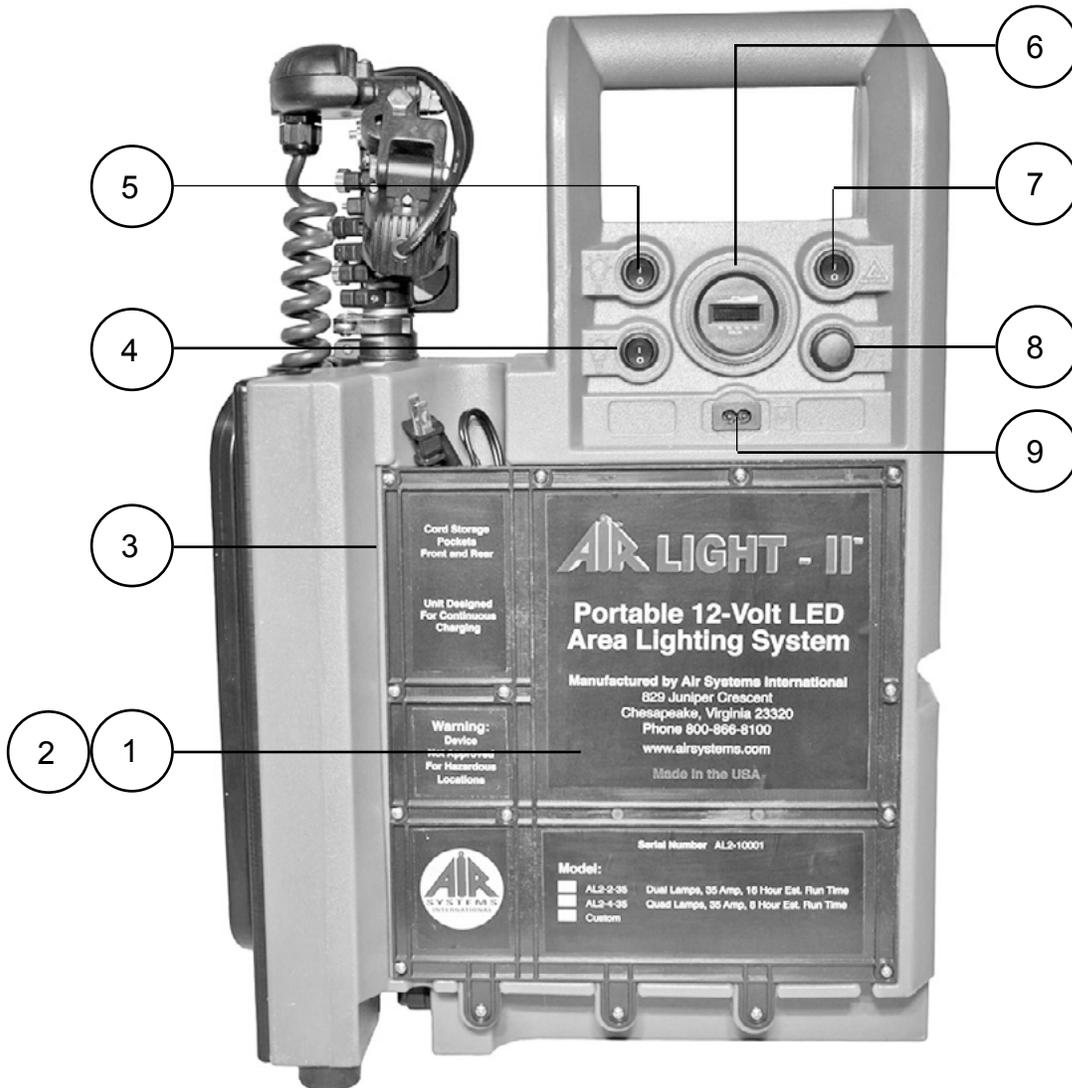
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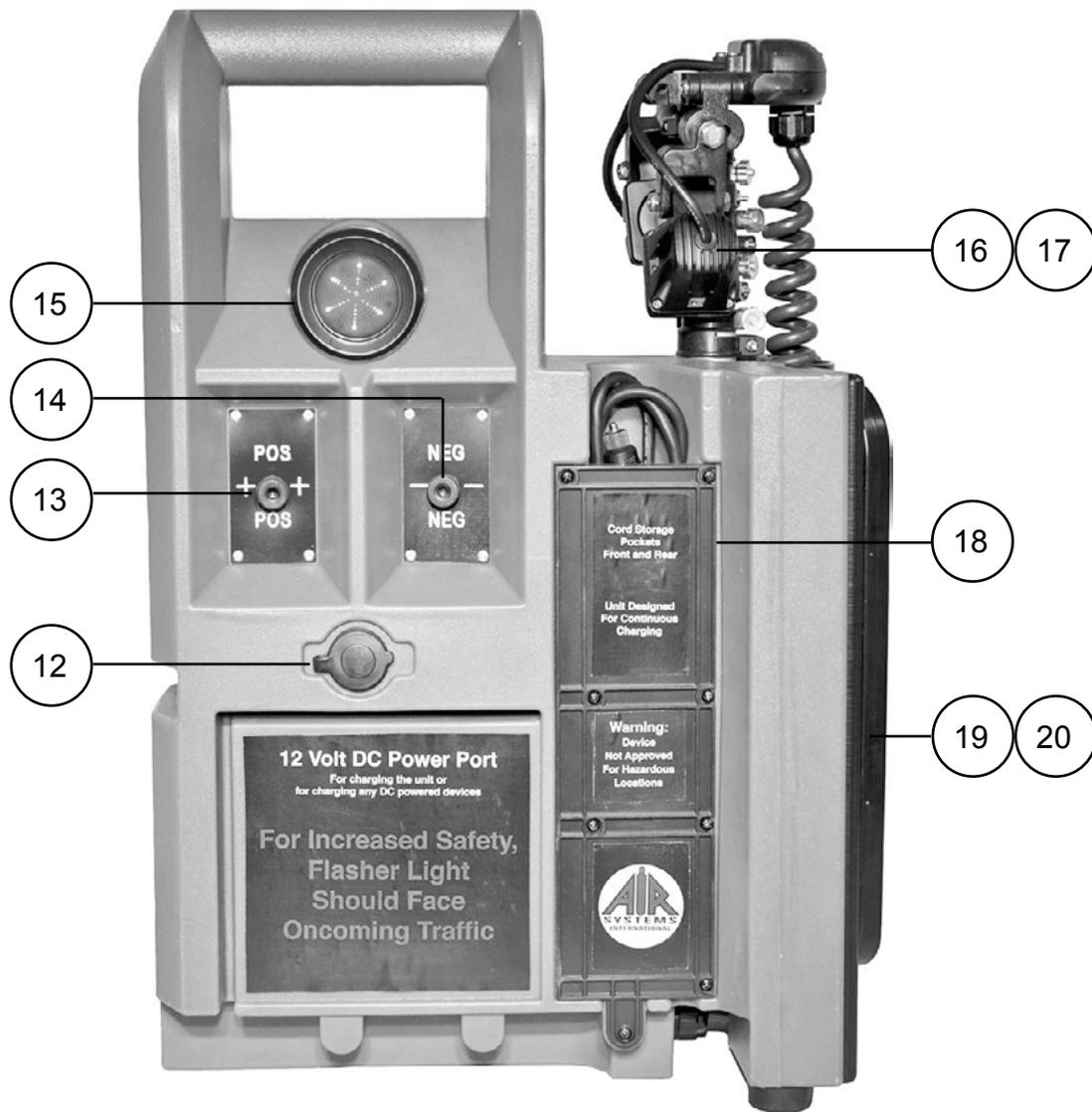
e-mail: sales@airsystems.com

SYSTEM COMPONENTS



Item #	Description	Part #
1	12 VDC 33 Amp/Hour Deep Cycle AGM Battery	AL400
2	12 VDC 3 Amp Battery Charger	AL123CHRGR
3	Cord Storage	N/A
4	Light #2 ON/OFF Switch	ELSW038R
5	Light #1 ON/OFF Switch	ELSW038R
6	Battery Meter	ALDCPM
7	Yellow Flasher Light ON/OFF Switch	ELSW038R
8	Momentary Switch for battery meter	ALDCPM-MSW
9	115 VAC Receptacle	C7SFSOCKET
10	12 VDC Power Cord (Not Shown)	LP-PC-DE
11	115 VAC Power Cord (Not Shown)	C7-PC-USA

SYSTEM COMPONENTS



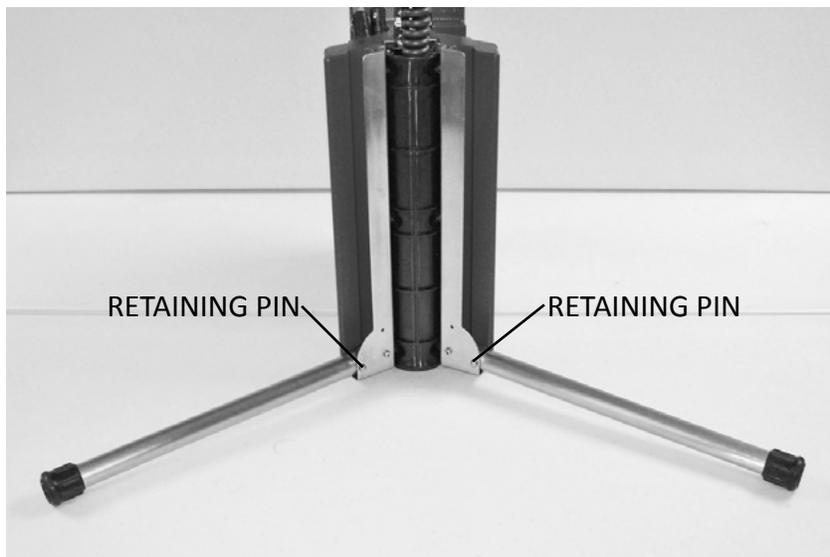
Item #	Description	Part #
12	12 VDC Accessory Receptacle	LS12VDC
13	12 VDC (+) Jumper Cable Post	FSB1/2X05S
14	12 VDC (-) Jumper Cable Post	FSB1/2X05S
15	Yellow Flasher Light	AL-6LED
16A	LED Light (1) Model AL2-2K-35	AL20LED
16B	LED Light (1) Model AL2-4K-35	AL20LED
16C	LED Light (1) Model AL2-7-35	AL35LED
16D	LED Light (1) Model AL2-86-35	AL43LEDFL
17	Telescoping Pole	AL-POLE-8
18	Cord Storage	N/A
19	Stabilizer Leg (Left)	AL2MLFRM-L
20	Stabilizer Leg (Right)	AL2MLFRM-R

SET-UP

Step 1)
Locate light support legs.



Step 2)
Pull legs toward metal frame and lower legs.



Step 3)
Lower legs until the retaining pins lock the legs in place.

SET-UP**Step 4)**

Open top clamp, raise mast, and close clamp to lock mast in place. Continue this process with other clamps until desired height is achieved.

**Step 5)**

Check 12 VDC battery voltage by pressing the "BATTERY TEST" push button switch.

BREAKDOWN**Step 1)**

Push retaining pin in to unlock leg assembly.

**Step 2)**

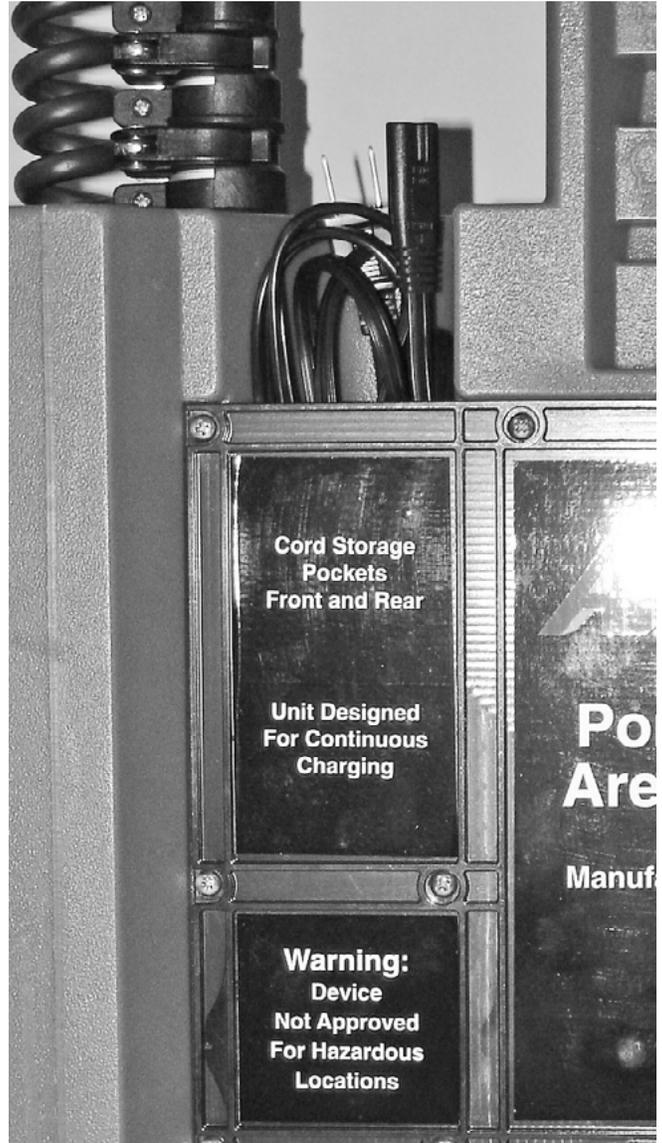
Lift leg until it is in the vertical position.

CORD STORAGE

FRONT



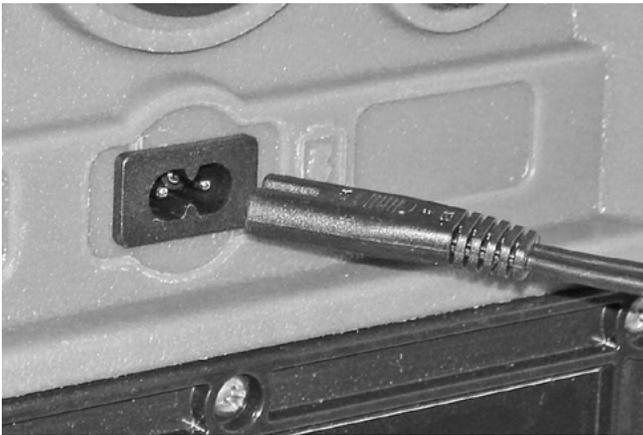
REAR



POWER OPTIONS



The standard power port receptacle can be used to charge and/or operate the light from a 12 volt vehicle battery source.



The 115 VAC receptacle is used for line voltage charging. The standard cord set is for 115 VAC. International cord sets are available for various countries worldwide. Contact customer service for details.



Various cord sets available.

POWER OPTIONS

Operating the light without external 12VDC power sources:

The portable lighting systems are powered by an onboard 12VDC 35 AMP/HR deep cycle sealed lead acid (SLA), absorptive glass mat (AGM) battery. The battery is UL recognized, valve regulated, maintenance free, non-spillable and facilitates storage of the light in any position. All batteries are affected by temperature changes. The ideal storage/operation temperature is 68°F, (20°C), but can safely be stored/operated at -40°F to 140°F, (-40°C to 60°C). Lower temperatures, below 68°F, (20°C), will decrease amperage output and reduce the amount of time the light can be operated on its internal battery.

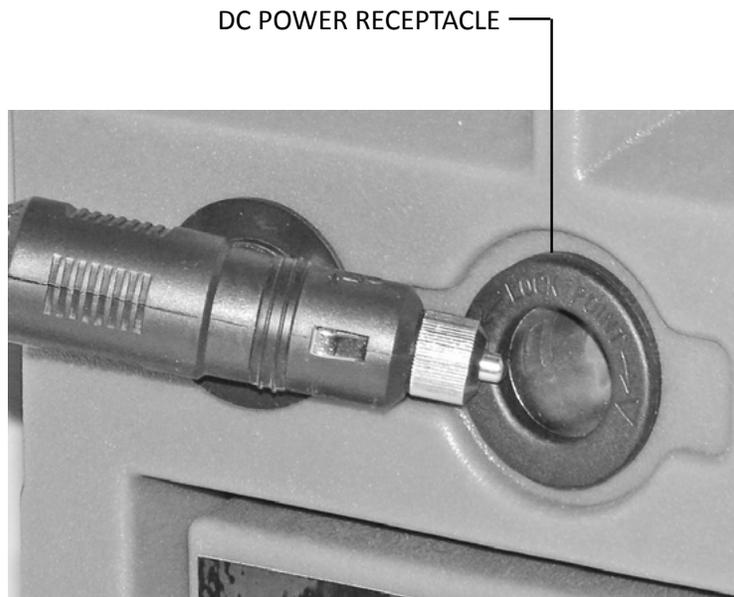
A deep cycle battery's recharging requirements and life span (cycles) are greatly affected by depth of discharge (DoD). Cycles are the number of times a battery can be discharged and recharged. The ideal DoD for batteries of this type is 30% of capacity. See table for maximum and suggested run times for each lighting configuration, and expected battery cycles.

Model	30% DoD Hrs/Battery Cycles	50% DoD Hrs/Battery Cycles	90% DoD Hrs/Battery Cycles
AL2-2K-35	12 Hrs./800 Battery Cycles	20 Hrs./500 Battery Cycles	35 Hrs./250 Battery Cycles
AL2-4K-35	6 Hrs./800 Battery Cycles	10 Hrs./500 Battery Cycles	17.5 Hrs./250 Battery Cycles
AL2-7-35	2 Hrs./800 Battery Cycles	3 Hrs./500 Battery Cycles	6 Hrs./250 Battery Cycles
AL2-86-35	2 Hrs./800 Battery Cycles	3 Hrs./500 Battery Cycles	5.5 Hrs./250 Battery Cycles
MIN. CHARGE TIME	4 hrs.	6 hrs.	10 hrs.

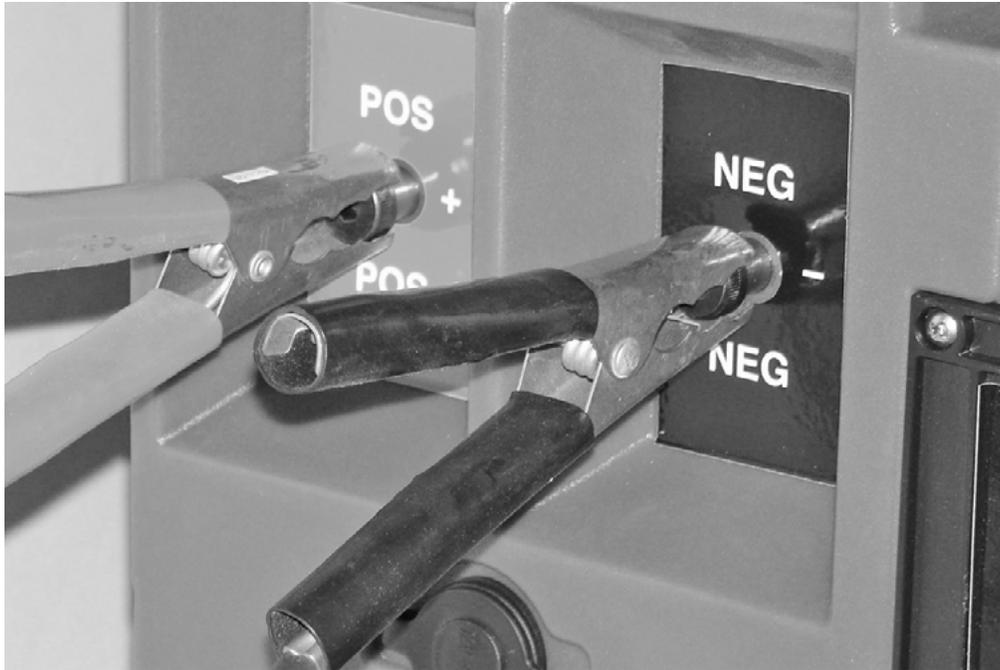
(Depleting beyond 90% DoD or greater is not recommended and will severely reduce battery cycle life.)

Operating the light with external 12VDC power sources:

If an alternate source of 12VDC power is available (vehicle, generator, etc.), the light can be powered by these external sources after the internal battery has been depleted, or leaving the internal battery in reserve for later use. There are two methods for running the light on external DC power sources: jumper cables connected to the jumper cable posts located on the rear of the housing, and the DC power cord connected to the DC power receptacle also located on the rear of the housing.



POWER OPTIONS



The light is equipped with jumper cable connection posts, POS(+) on the left of the control panel and NEG(-) on the right. To use this power input option:

Step 1)

Turn vehicle ignition off before making cable connections.

Step 2)

Connect jumper cables to vehicle battery (Red grip to POS(+) terminal and Black grip to NEG(-) terminal).

Step 3)

Connect jumper cables to light control panel (Red grip to POS(+) post and Black grip to NEG(-) post). **Do not touch Red POS(+) grip to Black NEG(-) grip.** Check and confirm all connections before proceeding.

Step 4)

Turn light "ON". The light will now run off of the vehicle battery. It is recommended that the vehicle be running during operation in this mode as it will drain the vehicle battery. Operating in this mode will recharge the light's internal battery.

To disconnect after use:

Step 1)

Turn light "OFF".

Step 2)

Turn vehicle ignition off.

Step 3)

Disconnect jumper cables from light. **Do not touch Red POS(+) grip to Black NEG(-) grip.**

Step 4)

Disconnect jumper cables from vehicle battery.

POWER OPTIONS



The light is equipped with a marine grade locking DC accessory receptacle, suitable for outdoor use. The receptacle is located on the right hand side of the case by the carry handle, and is accessed by removing the dust cover from the receptacle.

To use this option with a vehicle as the external power source:

Step 1)

Plug one side of the dual end DC power cord, Part # LP-PC-DE, into the DC accessory receptacle and twist to lock.

Note: The lock markings are on the plug and receptacle for indexing the locked position

Step 2)

Plug other side of the dual end DC power cord into a vehicle cigarette lighter well or auxiliary power outlet.

Step 3)

Turn light "ON". The light will now run off of the vehicle battery. It is recommended that the vehicle be running during operation in this mode as it will drain the vehicle battery. The light DC accessory receptacle is connected directly to the internal battery. (Operating in this mode will recharge the light's internal battery). Because the light's DC accessory receptacle is connected directly to the internal battery, when not using this external source option, you can plug any accessory, up to 8 amps (laptops, cell phone chargers, or the Air-Light hand held units), into the receptacle and the light will provide power.

To disconnect after use:

Step 1)

Turn light "OFF".

Step 2)

Turn vehicle ignition off.

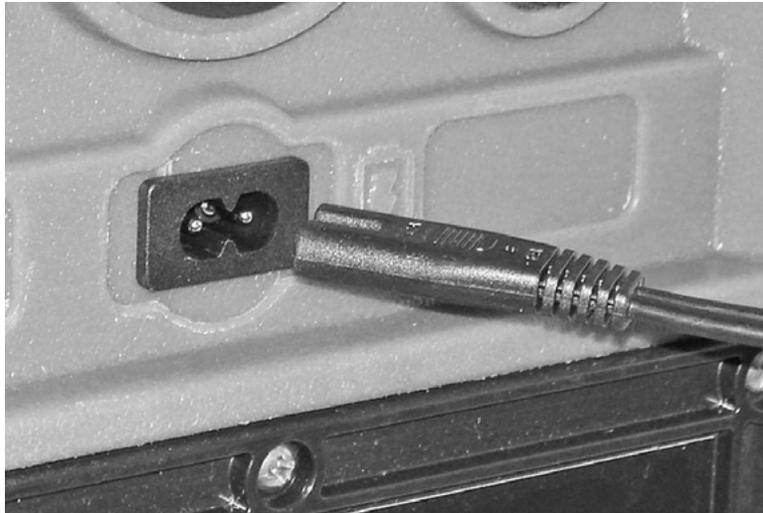
Step 3)

Disconnect dual end DC power cord from vehicle.

Step 4)

Disconnect dual end DC power cord from light by twisting the plug away from lock arrows and pulling.

POWER OPTIONS



The light is equipped with an unpolarized IEC 60320 C8 power receptacle located on the front control panel. It can operate on either 110/240 VAC, 50/60 Hz. This power receptacle is directly connected to the onboard 3 amp, 3 stage battery charger/maintainer, and is typically used for recharging the internal battery. It can also be used as a supplemental power source to the internal battery. The charger does not have sufficient DC power output to run most light configurations on its own, but when connected to an AC wall outlet using the provided IEC 60320 C7 power cord, Part # C7-PC-(US, EUR, AUS), can extend the run time duration of the internal battery, typically by 25% or more. For extended run times, it is recommended that an external source of 12VDC power be used instead.

To use this AC input option:

Step 1)

Plug C7 side of the IEC 60320 power cord into the IEC 60320 C8 power receptacle on light.

Step 2)

Plug other end into an AC wall outlet.

Step 3)

Turn light "ON".

When the internal battery has been depleted, the lights should be switched off and the unit recharged, or use one of the before mentioned external DC power input methods for continued operation.

To disconnect after use:

Step 1)

Turn light "OFF".

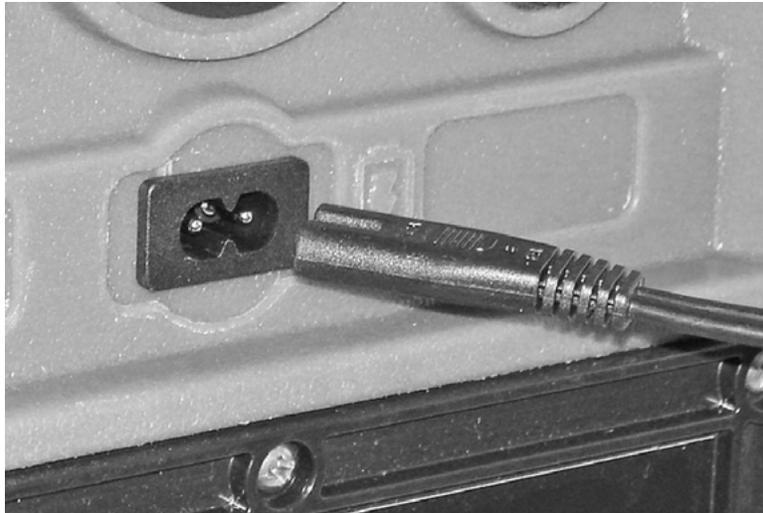
Step 2)

Unplug AC power cord from AC wall outlet.

Step 3)

Unplug AC power cord from C8 socket.

RECHARGING OPTIONS



The light is equipped with an onboard 3 amp, 3 stage automatic battery charger/maintainer. It can operate on either 110/240 VAC, 50/60 Hz. An unpolarized IEC 60320 C8 power receptacle is used to connect the light to AC power. The unit can be continually left connected to AC power, maintaining the battery at full capacity for future use.

To recharge using AC wall outlet:

Step 1)

Plug C7 side of the IEC 60320 power cord into the IEC 60320 C8 power receptacle on light.

Step 2)

Plug other end into an AC wall outlet.

Recharging time is a factor of DoD. It is recommended that the unit be charged at least 12 hours or overnight to condition the battery for next use. Faster charging times can be approximated. See table on Page 9.

The light is equipped with a digital DC volt meter that operates when the "BATTERY TEST" pushbutton switch is depressed and held for 2 seconds. This will display the current voltage level of the internal battery or the external 12 VDC power source. This switch can be depressed any time in any mode if you want to check voltage levels. When connected to AC power during charge cycle, the meter should illuminate at 13-14 volts.

RECHARGING OPTIONS



The light is equipped with a marine grade locking DC accessory receptacle, suitable for outdoor use, located on the right hand side of the case by the carry handle. It is accessed from outside the box by removing the dust cover from the receptacle.

To use a vehicle charging system as the DC power source:

Step 1)

Plug one side of the dual end DC power cord, Part # LP-PC-DE, into the light DC accessory receptacle and twist to lock. (Note: The lock markings are on the plug and receptacle for indexing the locked position).

Step 2)

Plug other side of the dual end DC power cord into a vehicle cigarette lighter well or auxiliary power outlet.

Step 3)

Ensure light is turned "OFF". The light's internal battery will now charge off of the vehicle electrical system. The vehicle must be running to charge using this method.

To disconnect after use:

Step 1)

Turn vehicle ignition off.

Step 2)

Disconnect dual end DC power cord from vehicle.

Step 3)

Disconnect dual end DC power cord from light by twisting plug away from lock arrows and pulling.

Recharging time is a factor of DoD. Vehicle charging systems can vary in output capacity, but will typically recharge the unit at a rate of 5 amps/hr. See table on following page.

APPROXIMATE BATTERY CHARGE TIMES

Model	30% DoD	50% DoD	90% DoD
MIN. CHARGE TIME	4 hrs.	6 hrs.	10 hrs.

(Depleting beyond 90% DoD or greater is not recommended and will severely reduce battery cycle life)

WARRANTY

normal use for one year from the date of purchase. Any part which is determined by Air Systems to be defective in material or workmanship will be, as the exclusive remedy, repaired or replaced at Air Systems' option. This warranty does not apply to electrical systems or electronic components. Electrical parts are warranted, to the original user, for 90 days from the date of sale. During the warranty period, electrical components will be repaired or replaced at Air Systems' option.

NO OTHER WARRANTY, EXPRESSED OR IMPLIED, AS TO DESCRIPTION, QUALITY, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ANY OTHER MATTER IS GIVEN BY AIR SYSTEMS IN CONNECTION HERewith. UNDER NO CIRCUMSTANCES SHALL THE SELLER BE LIABLE FOR LOSS OF PROFITS, ANY OTHER DIRECT OR INDIRECT COSTS, EXPENSES, LOSSES, OR DAMAGES ARISING OUT OF DEFECTS IN, OR FAILURE OF THE PRODUCT OR ANY PART THEREOF.

The purchaser shall be solely responsible for compliance with all applicable Federal, State and Local OSHA and/or MSHA requirements. Although Air Systems International believes that its products, if operated and maintained as shipped from the factory and in accordance with our "operations manual", conform to OSHA and/or MSHA requirements, there are no implied or expressed warranties of such compliance extending beyond the limited warranty described herein. Product designs and specifications are subject to change without notice. Rev. 2, 12/98

Air leaks are not covered under warranty except when they result from a defective system component, i.e. an on/off valve or regulator or upon initial delivery due to poor workmanship. Air leaks due to poor delivery or damage will be covered under delivery claims. Minor air leaks are part of routine service and maintenance and are the responsibility of the customer just as are filters and oil changes.



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