

Troubleshooting

If the Lind AC/DC adapter is not supplying power to your computer, check the following:

- Ensure that power is present from either the AC or the DC voltage source.
- Ensure that the AC power cord is firmly plugged into the AC power connector of the adapter and the AC wall outlet. If using DC power, see that the DC input cable is firmly connected to the adapter and its input power source. Ensure that the green "Output Present" LED is on.
- Ensure that the DC power cord is firmly seated in the DC input connector of the electronic device and that the snap-in connector is firmly seated in the AC/DC power adapter.

For service, Contact:

Lind Electronics, Inc. #800-659-5956 or #952-927-6303

Limited Warranty

Lind Electronics, Inc. (LIND) warrants the circuit assembly portion of products manufactured by it to be free of defects in material and workmanship for a period of 1 year from the date of purchase under normal use. During this warranty period, LIND will, at its option, repair or replace the product at no charge for parts or labor when the product is returned shipping paid as a complete unit to LIND. Proof of purchase and a letter explaining the problem must accompany the returned unit.

This warranty does not apply if any part of the adapter, its cables or connection jacks have been altered, subjected to abuse, accident or misuse. This warranty excludes incidental or consequential damage resulting from the product or the use of the product. This warranty is in lieu of all other warranties expressed or implied and no person is authorized to assume for LIND any other liability in conjunction with this product. The warranty gives you, the purchaser, specific legal rights and you may have other rights which may vary from state to state and country to country.

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User's Guide Lind[®] Ruggedized Combination AC/DC Power Adapter



This guide provides information on using Lind combination AC/DC power adapters. We strongly recommend that you read this guide before using the adapter even if you are already familiar with mobile devices and their power sources.

This high-quality adapter should provide years of reliable performance. The ruggedized power adapter provides several advantages when using your electronic device.

- Rugged construction allows use of the adapter in tough operating environments.
- Power adapter can accept power from AC and DC voltage sources. (See label)
- Sealed and potted to resist moisture and high humidity.
- Extend the life of the battery by using AC or DC power when possible in mobile devices.
- Replaceable input and output cables.
- Operation over wide temperature range.
- Short circuit protection.
- Output overvoltage and overcurrent protection.

***Please read the precautions noted in this manual.**

***Special Use Warning**

Do not use this adapter with lighter plug splitter or extender cables. These devices can cause the adapter cigarette lighter plug to become very hot. The plastic cases of these splitter receptacle traps the heat and does not allow it to dissipate.

For assistance and recommendations for connecting multiple devices to the DC input source, call Lind Technical Assistance (8AM-5PM CST) at:

800-659-5956 or 952-927-6303

When powering the adapter from an AC Power Source

To connect the adapter to your system from an AC voltage source: (Reference: *Figure 1*)

1. Firmly plug the snap-in connector of the DC output cable into adapter output jack.
2. Plug the connector of the DC output cable into the mating DC input connector on the electronic device you are to power.
3. Plug the AC power cord into the Lind power adapter.
4. Plug the outlet end of the AC power cord into your AC wall outlet.
5. Confirm that the green "Output Present" LED is on and that power is now being supplied to the device.

This connection sequence may be altered without an effect on operation.

You can now use your system with the power supplied by the adapter.

When powering the adapter from a DC Power Source

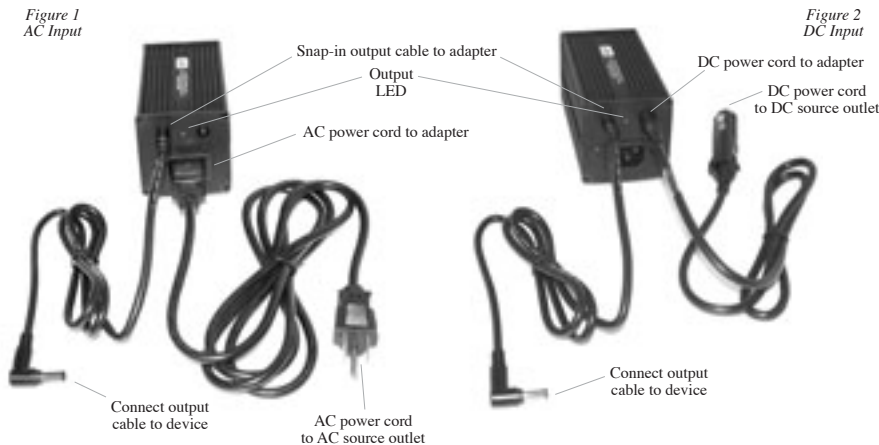
To connect the adapter to your system from a DC voltage source: (Reference: *Figure 2*)

1. Firmly plug the snap-in connector of the DC output cable into adapter output jack.
2. Plug the connector of the DC output cable into the mating DC input connector on the electronic device you are to power.
3. Insert the supplied DC input cable into the Lind power adapter.
4. Insert the supplied DC input cable into the DC voltage source. The input cable options may be a cigarette lighter connector, a Nato slave connector, a custom DC input connector or the connection may be wired directly to the appropriate fused DC source. Observe voltage polarity when wiring. (Black wire = ground)
5. Confirm that the green "Output Present" LED is on and that power is being supplied to the device from a DC source.

This connection sequence may be altered without an effect on operation.

You can now use your system with the power supplied by the adapter.

***Note:** It is not recommended that the adapter be connected to an AC and DC voltage source simultaneously. However, if this inadvertently happens neither the adapter nor your device will be harmed.



Cautionary notes when using AC power

When using the Lind ruggedized combination AC/DC adapter, follow the precautions below.

- When using the AC power input, use a power cord conforming to local safety standards.
- The rated AC input voltage is between 90 VAC and 264 VAC. The input voltage need not be changed with a transformer or the like.
- Never attempt to disassemble or modify the adapter.
- In the event of failure, contact a Lind service representative.
- Never use a multi-plug adapter to plug multiple power plugs in the same outlet. If it is used, a short circuit or electric shock may result.
- The metal case of the adapter can get quite warm during normal use, particularly when operating in high ambient temperatures. Use caution when handling and mounting the adapter. Do not cover or restrict airflow around adapter in any manner. Excessive adapter temperature may result.
- Do not damage, stretch, or excessively bend the power cord. A fire or electric shock may result.
- If you detect smoke or unusual smell, turn your device off and unplug the power plug immediately. Contact a Lind service representative.
- When unplugging the power plug, grasp the plug, not the cord. Pulling the cord forcibly can damage the cord and consequently cause a fire or electric shock.
- Never attempt to plug or unplug the power plug or the connector of the AC adapter when your hands are wet. An electric shock may result.

Common Questions Concerning Power Adapters

If the LED on the automobile power plug or the output LED on the adapter does not light when plugged in, what is wrong? Some vehicles must be running or must have the key ON to have power at the lighter socket. It is also possible that one of the safety circuits in the adapter has been activated. Also, check the fuse in the input power cable.

Is it normal for the adapter to get warm in use? Yes. Restricted air flow around the adapter may even cause the adapter to overheat and shut down. This is a safety feature and does no harm to the adapter or your mobile device. Do not place the adapter in the vehicle glove compartment or cover it with anything in such a way that heat can not dissipate.

Does it matter which cable gets plugged in first? No.

Can I plug the computer in when it is running? Yes.

Is it OK to start or stop the vehicle engine with the adapter plugged in? Yes, but do not jump start the vehicle with the adapter in place. Many jump start systems use high voltages that will normally shut down the adapter output but extreme voltage spikes may damage the adapter circuitry. Starting the vehicle may turn the adapter off. After a ten second delay, the adapter will start back up.

Can this adapter be used with a multi output cigarette plug splitter? Use extreme caution with lighter plug splitter cables. These devices can cause the cigarette lighter plug on the adapter to become very hot. The plastic cases of these splitters can entrap the heat and not allow it to dissipate. Call us for alternate ways of connecting more than one device to your DC source.

Replacement and direct input connection cables are available from Lind. Call us with your needs.

AC Voltage Specifications

Input voltage	90 - 264 volts AC
Frequency	47-63 hertz (or 47 to 440 Hz)*
	*(See label on AC Adapter)
Input current	1.5 amperes maximum
Ripple & noise	2% maximum
Load regulation	+/-5% maximum
Output voltage	See adapter label
Output current	See adapter label
Weight	31.3 ounces
Size	6.0 x 1.75 x 1.75 inches

DC Voltage Specifications

Input voltage	Noted on adapter label
Input Fuse	Noted on input cable label.
	Replace only with same type and rating of fuse
Indicators	LED on automobile plug if equipped (Input present)
	LED on adapter (Output power present)
Features	Output Short Circuit Protected
	Output Current Limit
	Internal Overtemp Cut-Off (DC input only)
	Low Input Voltage Cut-Off (DC input only)
	Automatic Reset of Safety Cut-Offs

Environmental

Operating ambient temp.**	-40°C to +40°C
Storage temperature	-40°C to +85°C
Operating rel. humidity	5 - 95% non-condensing

**Operation below 0°C may result in higher ripple voltage until adapter has warmed.