### **INSTRUCTION MANUAL**



DCE100 20V MAX\* Lithium Handheld Blower

# **Definitions: Safety Guidelines**

The definitions below describe the level of severity for each signal word. Please read the manual and pay attention to these symbols.

▲ DANGER: Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. ▲ WARNING: Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

**A** CAUTION: Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

**NOTICE:** Indicates a practice **not related to personal injury** which, if not avoided, **may** result in **property damage**.

# **IMPORTANT SAFETY INSTRUCTIONS**

**AWARNING:** When using an electric appliance, basic safety precautions should always be followed to reduce risk of fire, electric shock, and personal injury, including the following.

#### TO REDUCE RISK OF INJURY:

- Before any use, be sure everyone using this unit reads and understands all safety instructions and other information contained in this manual.
- Save these instructions and review frequently prior to use and in instructing others.

 Instructions for compatible batteries and chargers are included for reference in this manual. Read all instruction manuals included with your battery pack or charger. Read all cautionary markings on the charger and battery pack. Consult the chart at the end of this manual for compatibility of chargers and battery packs.

# READ ALL AND UNDERSTAND ALL INSTRUCTIONS BEFORE USING

**AWARNING:** Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

- Disconnect the battery pack from the blower before making any adjustments, changing accessories, servicing, moving or storing the vacuum. Such preventative safety measures reduce the risk of starting the appliance accidentally.
- **USE ONLY** as described in this manual. Use only manufacturer's recommended attachments.
- **USE THE RIGHT UNIT** Do not use this unit for any job except that for which it is intended.
- **STAY ALERT** Watch what you are doing. Use common sense. Do not operate unit when you are tired.
- **AVOID** accidental starting. Turn off all controls before removing the battery pack. Be sure switch is in the locked or off position before inserting battery pack. Carrying units with your finger on the switch or inserting the battery pack into a unit with the switch on invites accidents.
- **DO NOT USE** this appliance if it is showing signs of malfunction in anyway. If the appliance is not working correctly, has been dropped, damaged, left outdoors, or dropped into water, return it to a service center.

- **DO NOT** use unit if switch does not turn it on or off. A unit that cannot be controlled with the switch is dangerous and must be repaired.
- **DO NOT** attempt to repair the blower. To assure product safety and reliability, repairs, maintenance, and adjustments should be performed by DEWALT service centers or authorized service centers, always using DEWALT replacement parts.
- **MAINTAIN UNIT WITH CARE.** Keep unit clean for best and safest performance. Follow instructions for proper maintenance.
- **DO NOT** allow to be used as a toy. Close attention is necessary when used by or near children. Not recommended for use by children.
- DO NOT handle the appliance with wet hands.
- **DO NOT** put any objects into openings. Do not use with any opening blocked; keep free of dust, lint, hair and everything that may reduce air flow.
- DO NOT allow debris to be ingested into blower intake
- **KEEP** hair, loose clothing, fingers, and all parts of body away from openings and moving parts.
- DO NOT attempt to clear clogs from unit without first removing battery.
- DO NOT place outlet of blower near eyes or ears when operating.
- DO NOT point unit discharge at self or bystanders.
- **KEEP CHILDREN, BYSTANDERS AND ANIMALS AWAY** from the work area a minimum of 30 feet (10 meters) when starting or operating the unit.
- **USE SAFETY EQUIPMENT.** Always wear eye protection. Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.
- AVOID DANGEROUS ENVIRONMENTAL CONDITIONS Do not use electric units in damp or wet locations. Don't use the unit in the rain. Keep your work area clean and well lit. Cluttered benches and dark areas invite accidents.

- **INSPECT THE AREA** before using the unit. Remove all debris and hard objects such as rocks, glass, wire, etc. that can ricochet, be thrown, or otherwise cause injury or damage during operation.
- USE EXTRA CARE when cleaning on stairs.
- **DO NOT OVERREACH.** Keep proper footing and balance at all times.
- **DO NOT** use the appliance to blow flammable or combustible liquids, such as gasoline, or use in areas where flammable or combustible liquids are present.
- **DO NOT** pick up anything that is burning or smoking, such as cigarettes, matches or hot ashes.
- **DO NOT** use to blow explosive dust, or in areas where air contains explosive dust such as coal, grain, or other combustible material.
- **DO NOT** operate blower in a gaseous or explosive atmosphere. Motors in these units normally spark, and the sparks might ignite fumes.
- DO NOT immerse any part of the unit in liquid.
- NEVER leave blower running unattended. Turn power off.
- **STORE IDLE UNITS.** When not in use, the unit should be stored in a dry, high or locked-up place out of reach of children.

**AWARNING:** Some dust created by this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- compounds in fertilizers
- compounds in insecticides, herbicides and pesticides
- arsenic and chromium from chemically treated lumber

To reduce your exposure to these chemicals, wear approved safety equipment such as dust masks that are specially designed to filter out microscopic particles.

#### **AWARNING:** Use of this appliance can generate and/ or disperse dust, which may cause serious and permanent respiratory or other injury. Always use NIOSH/OSHA approved respiratory protection appropriate for the dust exposure. Direct particles away from face and body.

**AWARNING:** Always wear proper personal hearing protection that conforms to ANSI S12.6 (S3.19) during use. Under some conditions and duration of use, noise from this product may contribute to hearing loss.

#### **EVERYIAR NING:** ALWAYS USE SAFETY GLASSES. Everyday eyeglasses are NOT safety glasses. Also use face or dust mask if cutting operation is dusty. ALWAYS WEAR CERTIFIED SAFETY EQUIPMENT:

- ANSI Z87.1 eye protection (CAN/CSA Z94.3),
- ANSI S12.6 (S3.19) hearing protection,
- NIOSH/OSHA/MSHA respiratory protection.

# **AWARNING:** To reduce the risk of electrical shock; do not expose to rain, do not use on wet surfaces. Store indoors.

• The label on your appliance may include the following symbols. The symbols and their definitions are as follows:

🗆 Class II
Construction
(double
insulated)
/min per minute
BPM beats per
minute

<ul> <li></li></ul>
minute
Interpretendant in the second sec
😔 Use proper eye
protection
${ m O}$ Use proper
hearing protection
Use proper
protection

# Important Safety Instructions for All Battery Packs

When ordering replacement battery packs, be sure to include the catalog number and voltage. Consult the chart at the end of this manual for compatibility of chargers and battery packs.

The battery pack is not fully charged out of the carton. Before using the battery pack and charger, read the safety instructions below and then follow charging procedures outlined.

# **READ ALL INSTRUCTIONS**

• Do not charge or use the battery pack in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Inserting or removing the battery pack from the charger may ignite the dust or fumes.

- NEVER force the battery pack into the charger. DO NOT modify the battery pack in any way to fit into a non-compatible charger as battery pack may rupture causing serious personal injury. Consult the chart at the end of this manual for compatibility of batteries and chargers.
- Charge the battery packs only in designated DEWALT chargers.
- **DO NOT** splash or immerse in water or other liquids. If appliance does get wet, allow to dry for a minimum of 48 hours before using.
- Do not store or use the appliance and battery pack in locations where the temperature may reach or exceed 105 °F (40 °C) (such as outside sheds or metal buildings in summer). For best life store battery packs in a cool, dry location. NOTE: Do not store the battery packs in a appliance with the trigger switch locked on. Never tape the trigger switch in the ON position.

**AWARNING:** Fire hazard. Never attempt to open the battery pack for any reason. If the battery pack case is cracked or damaged, do not insert into the charger. Do not crush, drop or damage the battery pack. Do not use a battery pack or charger that has received a sharp blow, been dropped, run over or damaged in any way (e.g., pierced with a nail, hit with a hammer, stepped on). Damaged battery packs should be returned to the service center for recycling.

**AVARNING:** Fire hazard. Do not store or carry the battery pack so that metal objects can contact exposed battery terminals. For example, do not place the battery pack in aprons, pockets, tool boxes, product kit boxes, drawers, etc., with loose nails, screws, keys, etc. Transporting batteries can possibly cause fires if the battery terminals inadvertently come in contact with conductive materials such as keys, coins, hand tools and the like. The US Department of Transportation Hazardous Material Regulations (HMR) actually prohibit transporting batteries in commerce or on airplanes (e.g., packed in suitcases and carry-on luggage) UNLESS they are properly protected from short circuits. So when transporting individual battery packs, make sure that the battery terminals are protected and well insulated from materials that could contact them and cause a short circuit.

# SPECIFIC SAFETY INSTRUCTIONS FOR LITHIUM ION (LI-ION)

- Do not incinerate the battery pack even if it is severely damaged or is completely worn out. The battery pack can explode in a fire. Toxic fumes and materials are created when lithium ion battery packs are burned.
- If battery contents come into contact with the skin, immediately wash area with mild soap and water. If battery liquid gets into the eye, rinse water over the open eye for 15 minutes or until irritation ceases. If medical attention is needed, the battery electrolyte is composed of a mixture of liquid organic carbonates and lithium salts.
- Contents of opened battery cells may cause respiratory *irritation.* Provide fresh air. If symptoms persist, seek medical attention.

**AWARNING:** Burn hazard. Battery liquid may be flammable if exposed to spark or flame.

## The RBRC<sup>™</sup> Seal

The RBRC™ (Rechargeable Battery Recycling Corporation) Seal on the nickel cadmium, nickel metal hydride or lithium ion batteries (or battery packs) indicate that the costs to recycle these batteries (or battery packs) at the end of their useful life have already been paid by DEWALT. In some areas, it is illegal to place spent

nickel cadmium, nickel metal hydride or lithium ion batteries in the trash or municipal solid waste stream and the RBRC program provides an environmentally conscious alternative.

RBRC<sup>™</sup>, in cooperation with DEWALT and other battery users, has established programs in the United States and Canada to facilitate the collection of spent nickel cadmium, nickel metal hydride or lithium ion batteries. Help protect our environment and conserve natural resources by returning the spent nickel cadmium, nickel metal hydride or lithium ion batteries to an authorized DEWALT service center or to your local retailer for recycling. You may also contact your local recycling center for information on where to drop off the spent battery.

RBRC<sup>™</sup> is a registered trademark of the *Rechargeable Battery Recycling Corporation.* 

## Important Safety Instructions for All Battery Chargers

**SAVE THESE INSTRUCTIONS:** This manual contains important safety and operating instructions for battery chargers.

• Before using the charger, read all instructions and cautionary markings on the charger, battery pack and product using the battery pack.

**AWARNING:** Shock hazard. Do not allow any liquid to get inside the charger. Electric shock may result.

**ACAUTION:** Burn hazard. To reduce the risk of injury, charge only DEWALT rechargeable battery packs. Other types of batteries may overheat and burst resulting in personal injury and property damage.

**NOTICE:** Under certain conditions, with the charger plugged into the power supply, the charger can be shorted by foreign material. Foreign materials of a conductive nature, such as, but not limited to, grinding dust, metal chips, steel wool, aluminum foil or any buildup of metallic

particles should be kept away from the charger cavities. Always unplug the charger from the power supply when there is no battery pack in the cavity. Unplug the charger before attempting to clean.

- DO NOT attempt to charge the battery pack with any chargers other than the ones in this manual. The charger and battery pack are specifically designed to work together.
- These chargers are not intended for any uses other than charging DEWALT rechargeable batteries. Any other uses may result in risk of fire, electric shock or electrocution.
- Do not expose the charger to rain or snow.
- Pull by the plug rather than the cord when disconnecting the charger. This will reduce the risk of damage to the electric plug and cord.
- Make sure that the cord is located so that it will not be stepped on, tripped over or otherwise subjected to damage or stress.
- Do not use an extension cord unless it is absolutely necessary. Use of improper extension cord could result in risk of fire, electric shock or electrocution.
- When operating a charger outdoors, always provide a dry location and use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.
- An extension cord must have adequate wire size (AWG or American Wire Gauge) for safety. The smaller the gauge number of the wire, the greater the capacity of the cable, that is, 16 gauge has more capacity than 18 gauge. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. When using more than one extension to make up the total length, be sure each individual extension contains at least the minimum wire size. The following table shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The lower the gauge number, the heavier the cord.

Minimum Gauge for Cord Sets								
		Volts Total Length of Cord in Feet (meters)						
Ampere Rating		120V	25 (7.6)	50 (15.2)	100 (30.5)	150 (45.7)		
		240V	50 (15.2)	100 (30.5)	200 (61.0)	300 (91.4)		
More Than	Not More Than	AWG						
0	6		18	16	16	14		
6	10		18	16	14	12		
10	12		16	16	14	12		
12	16	14 12 Not Recommended						

- Do not place any object on top of the charger or place the charger on a soft surface that might block the ventilation slots and result in excessive internal heat. Place the charger in a position away from any heat source. The charger is ventilated through slots in the top and the bottom of the housing.
- Do not operate the charger with a damaged cord or plug.
- Do not operate the charger if it has received a sharp blow, been dropped or otherwise damaged in any way. Take it to an authorized service center.
- Do not disassemble the charger; take it to an authorized service center when service or repair is required. Incorrect reassembly may result in a risk of electric shock, electrocution or fire.
- Disconnect the charger from the outlet before attempting any cleaning. This will reduce the risk of electric shock. Removing the battery pack will not reduce this risk.
- NEVER attempt to connect 2 chargers together.
- The charger is designed to operate on standard 120V household electrical power. Do not attempt to use it on any other voltage. This does not apply to the vehicular charger.

# Chargers

Your tool uses a DEWALT charger. Be sure to read all safety instructions before using your charger. Consult the chart at the end of this manual for compatibility of chargers and battery packs.

# **Charging Procedure (Fig. 1)**

- 1. Plug the charger into an appropriate outlet before inserting the battery pack.
- 2. Insert the battery pack (E) into the charger, as shown in Figure 1, making sure the pack is fully seated in charger. The red (charging) light will blink continuously, indicating that the charging process has started.
- 3. The completion of charge will be indicated by the red light remaining ON continuously. The pack is fully charged and may be used at this time or left in the charger.



# Indicator Light Operation





## **Charge Indicators**

This charger is designed to detect certain problems that can arise. Problems are indicated by the red light flashing at a fast rate. If this occurs, re-insert the battery pack into the charger. If the problem persists, try a different battery pack to determine if the charger is working properly. If the new pack charges correctly, then the original pack is defective and should be returned to a service center or other collection site for recycling. If the new battery pack elicits the same trouble indication as the original, have the charger and the battery pack tested at an authorized service center.

#### HOT/COLD DELAY DCB101, DCB102, DCB103

These chargers have a hot/cold delay feature. When the charger detects a battery that is too hot or too cold, it automatically starts a delay, suspending charging. The red light flashes long, then short while in the hot/cold delay mode.

Once the battery has reached an optimum temperature, the charger will automatically resume the charging procedure. This feature ensures maximum battery life.

#### DCB107, DCB112, DCB113, DCB115

These chargers have a hot/cold delay feature. When the charger detects a battery that is too hot or too cold, it automatically starts a delay, suspending charging. The red light will continue to blink, but a yellow indicator light will be illuminated during this suspension.

Once the battery has reached an optimum temperature, the yellow light will turn off and the charger will automatically resume the charging procedure. This feature ensures maximum battery life.

#### LEAVING THE BATTERY PACK IN THE CHARGER

The charger and battery pack can be left connected with the charge indicator showing Pack Charged.

**WEAK BATTERY PACKS:** Weak batteries will continue to function but should not be expected to perform as much work.

#### FAULTY BATTERY PACKS

#### DCB101, DCB102, DCB103

These chargers will not charge a faulty battery pack. The charger will indicate faulty battery pack by refusing to light or by displaying problem pack or charger.

**NOTE:** This could also mean a problem with a charger.

#### DCB107, DCB112, DCB113, DCB115

These chargers will not charge a faulty battery pack. The charger will indicate faulty battery pack by refusing to light.

**NOTE:** This could also mean a problem with a charger.

# Wall Mounting

#### DCB107, DCB112, DCB113, DCB115

These chargers are designed to be wall mountable or to sit upright on a table or work surface.

If wall mounting, locate the charger within reach of an electrical outlet. Mount the charger securely using drywall screws at least 1" (25.4 mm) long, screwed into wood to an optimal depth leaving approximately 7/32" (5.5 mm) of the screw exposed.

## **Important Charging Notes**

1. Longest life and best performance can be obtained if the battery pack is charged when the air temperature is between 65  $^\circ\mathrm{F}$  and

75 °F (18°-24 °C). DO NOT charge the battery pack in an air temperature below +40 °F (+4.5 °C), or above +104 °F (+40 °C). This is important and will prevent serious damage to the battery pack.

- 2. The charger and battery pack may become warm to the touch while charging. This is a normal condition, and does not indicate a problem. To facilitate the cooling of the battery pack after use, avoid placing the charger or battery pack in a warm environment such as in a metal shed or an uninsulated trailer.
- 3. A cold battery pack will charge at about half the rate of a warm battery pack. The battery pack will charge at that slower rate throughout the entire charging cycle and will not return to maximum charge rate even if the battery pack warms.
- 4. If the battery pack does not charge properly:
  - a. Check operation of receptacle by plugging in a lamp or other appliance;
  - b. Check to see if receptacle is connected to a light switch which turns power off when you turn out the lights;
  - c. Move the charger and battery pack to a location where the surrounding air temperature is approximately 65  $^\circ\text{F}-75$   $^\circ\text{F}$  (18 $^\circ-24$   $^\circ\text{C});$
  - d. If charging problems persist, take the tool, battery pack and charger to your local service center.
- 5. The battery pack should be recharged when it fails to produce sufficient power on jobs which were easily done previously. DO NOT CONTINUE to use under these conditions. Follow the charging procedure. You may also charge a partially used pack whenever you desire with no adverse effect on the battery pack.
- 6. Foreign materials of a conductive nature such as, but not limited to, grinding dust, metal chips, steel wool, aluminum foil, or any buildup of metallic particles should be kept away from charger cavities. Always unplug the charger from the power supply when

there is no battery pack in the cavity. Unplug the charger before attempting to clean.

7. Do not freeze or immerse the charger in water or any other liquid.

**AWARNING:** Shock hazard. Don't allow any liquid to get inside the charger. Electric shock may result.

**AWARNING:** Burn hazard. Do not submerge the battery pack in any liquid or allow any liquid to enter the battery pack. Never attempt to open the battery pack for any reason. If the plastic housing of the battery pack breaks or cracks, return to a service center for recycling.

### **Storage Recommendations**

- 1. The best storage place is one that is cool and dry, away from direct sunlight and excess heat or cold.
- 2. For long storage, it is recommended to store a fully charged battery pack in a cool dry place out of the charger for optimal results.

**NOTE:** Battery packs should not be stored completely depleted of charge. The battery pack will need to be recharged before use.

## SAVE THESE INSTRUCTIONS FOR FUTURE USE

# COMPONENTS (Fig. 2)

**AWARNING:** Never modify the power tool or any part of it. Damage or personal injury could result.

- A. Extension attachment
- B. End attachment
- C. Trigger switch
- D. Lock-on button
- E. 3-speed toggle switch
- F. Battery

- G. Battery release button
- H. Inflator/Deflator attachment
- I. Intake



#### INTENDED USE

This cordless compact blower is designed for professional blowing applications.

**DO NOT** use under wet conditions or in presence of flammable liquids or gases.

This cordless compact blower is a professional appliance. **DO NOT** let children come into contact with the tool. Supervision is required when inexperienced operators use this appliance.

# ASSEMBLY

A WARNING: To reduce the risk of serious personal injury, turn tool off and remove the battery pack before making any adjustments or removing/installing attachments or accessories.

An accidental start-up can cause injury.

**ACAUTION:** Ensure the battery is removed before removing extension attachment (A) or end attachment end (B). A attachment must be attached to the housing before use.

#### Attachments (Fig. 3-5) BLOWER

To connect the extension attachment, end attachment or inflator/deflator attachment to the blower outlet:

- Line up the pegs (J) on the inside of the attachemnt with the notches (K) of the housing opening as shown in figure 3.
- 2. Push the attachment onto the blower housing and turn left to lock. Pull on the attachment to ensure it is securely in place.
- 3. To remove the attachment, turn right to unlock and pull it off of the blower housing.

#### DEFLATOR

To connect the inflator/deflator attachment to the deflator intake (I):

- 1. Line up the detents on the attachment with the notches on the top, bottom and sides of the intake.
- 2. Press the adaptor onto the intake.
- 3. To remove the attachment from the tube or intake, pull the adaptor away from the tool.





FIG. 5



# OPERATION $\Lambda M/\Lambda DNINI$

**AWARNING:** Do not operate blower without tube securely in place. Never reach down into housing through tube hole.

# **AWARNING:** Always remove the battery when:

- You leave blower unattended or when storing.
- Checking, adjusting, cleaning, or working on blower.

# Installing and Removing the Battery Pack (Fig. 6)

**NOTE:** For best results, make sure your battery pack is fully charged.

To install the battery pack (F) into the tool handle, align the battery pack with the rails inside the tool's handle and slide it into the handle

until the battery pack is firmly seated in the tool and ensure that it does not disengage.

To remove the battery pack from the tool, press the release button (G) and firmly pull the battery pack out of the tool handle. Insert it into the charger as described in the charger section of this manual.

#### FUEL GAUGE BATTERY PACKS (FIG. 7)

Some DEWALT battery packs include a fuel gauge which consists of three green LED lights that indicate the level of charge remaining in the battery pack.





Pack needs to be charged

To actuate the fuel gauge, press and hold the fuel gauge button (G). A combination of the three green LED lights will illuminate designating the level of charge left. When the level of charge in the battery is below the usable limit, the fuel gauge will not illuminate and the battery will need to be recharged.



**NOTE:** The fuel gauge is only an indication of the charge left on the battery pack. It does not indicate tool functionality and is subject to variation based on product components, temperature and end-user application.



G

# **Switching On (Fig. 2, 8, 9) ACAUTION:** Do not point unit discharge at self or bystanders.

**ACAUTION:** Always wear safety glasses and hearing protection. Wear a filter mask if the operation is dusty. Use of gloves, long pants and substantial footwear is recommended. Keep long hair and loose clothing away from openings and moving parts.

To turn the blower on, depress the variable speed trigger (C). As trigger is pulled from min to max position (or full off to full on), the airflow from the blower will increase from min to max. Release the trigger fully to turn the blower off.

To lock the blower on, press the lock-on button (D) with the variable speed trigger (C) depressed, as shown in figure 8. To turn the blower off when using the lock-on button, pull the trigger to release the lock.



 Hold the blower with both hands, as shown in figure 9, and sweep from side to side with tube output end several inches above the hard surface. Slowly advance, keeping the accumulated pile of debris in front of you.



## Speed selection (Fig. 10)

The 3 speed toggle switch (E) sets the maximum airflow that can be achieved when trigger is fully depressed. Push the toggle switch (E) up to increase air flow; push it down to decrease air flow.



#### **MAINTENANCE** AWARNING: To reduce the risk of serious personal injury, turn appliance off and remove the battery pack before making any adjustments or removing/installing attachments or accessories. An accidental start-up can cause injury.

#### **Cleaning AWARNING:** Blow dirt and dust out of all air vents with clean, dry air at least once a week. To minimize the risk of eye injury, always wear ANSI Z87.1 approved eye protection when performing this.

**AWARNING:** Never use solvents or other harsh chemicals for cleaning the non-metallic parts of the appliance. These chemicals may weaken the plastic materials used in these parts. Use a cloth dampened only with water and mild soap. Never let any liquid get inside the appliance; never immerse any part of the appliance into a liquid.

#### **CHARGER CLEANING INSTRUCTIONS AWARNING:** Shock hazard. Disconnect the charger from the AC outlet before cleaning. Dirt and grease may be removed from the exterior of the charger using a cloth or soft non-metallic brush. Do not use water or any cleaning solutions.

#### Accessories AWARNING: Since accessories, other than those offered by DEWALT, have not been tested with this product, use of such accessories with this appliance could be hazardous. To reduce the risk of injury, only DEWALT recommended accessories should be used with this product.

## TROUBLESHOOTING

PROBLEM	SOLUTION
Unit will not start	Check battery installation.
	Check battery charging requirements.
Battery won't charge	<ul> <li>Insert battery into charger until red charging light illuminates. Charge up to 8 hours if battery is totally drained.</li> </ul>
	Plug charger into a working outlet. Refer to Important Charging Notes for more details.
	Check current at receptacle by plugging an appliance into it.
	• Check to see if receptacle is connected to a light switch which turns power off when you turn out the lights.
	<ul> <li>Move charger and appliance to a surrounding air temperature of above 40 °F (4.5 °C) or below 105 °F (40.5 °C).</li> </ul>