

TERMS OF WARRANTY

EXIDE
Dlite

EXIDE INVERTERZ

For any service related issue
call our Toll Free No. 1800-103-5454

Exide Industries Ltd.
59E, Chowringhee Road, Kolkata – 700 020

Dear Valued Customer,

We congratulate you for your excellent choice of our Exide Dlite. Exide Dlite will provide you complete comfort during the absence of utility power and provide your appliances the exact replication of mains supply because of the latest Technology.

The salient features of EXIDE DLITE are

- Controlled Output Voltage
- Automatic Battery Charge Management
- LED Indications for better user interface
- Automatic Overload, Battery Low, Over Temperature & Short Circuit protection sense
- Wide Mains Voltage Charging Range i.e. 100V – 290V
- Mains Low Voltage Charging Facility
- Great Power Saving
- Easy to Service
- No Humming Noise
- Battery can be fitted inside the Inverter*

This manual provides you thorough understanding of your Exide Dlite and its optimum use.

Please read installation and operating instructions in the manual carefully. Before installing and using you EXIDE DLITE. Pay special attention to the **CAUTION** and **WARNING** statements in this manual.

*Applicable on EXIDE DLITE 300i

About the EXIDE DLITE

Exide Dlite transforms Direct Current (DC) to Alternating Current (AC). The battery acts as a reservoir ensuring continuous supply when utility power is not available.

Controls

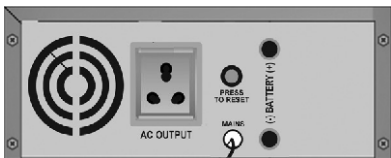
Front Panel

| Graphic Description | Indication | Meaning |
|----------------------------|------------------------------------|-------------------------|
| MAINS ON | Continuous Glow | Mains Present |
| | Blinking with beep sound | Mains fuse blown |
| BACK-UP ON | Continuous Glow | Back-up ON |
| BATTERY LOW | Continuous glow with beep sound | Battery Voltage Low |
| | Continuous glow without beep sound | Battery Voltage Low Cut |
| CHARGING / CHARGED | Blinking | Battery Charging |
| | Continuous Glow | Battery Charged |
| OVERLOAD/ SHORT CIRCUIT | Blinking with beep sound | Overload Alarm |
| | Blinking without beep sound | Shutdown |
| | Continuous glow with beep sound | Short Circuit |
| ON/ OFF - ON | ON/ OFF Switch LED Glow | Dlite ON |
| ON/ OFF - OFF | ON/ OFF Switch LED Not Glow | Dlite OFF |

Rear Panel

Exide Dlite has two battery wires coming out from the rear side, a Thermal Circuit Breaker 5Amp, output socket and a three pin top power cord to connect with mains supply. Red coloured battery wire is to be connected to positive terminal of battery and black coloured wire to be connected to negative terminal of the battery.

Caution: Do not reverse the battery connections, it will blow the DC fuse connected in series with battery connection inside the Power Cord



Some Safety Measures

Important Precautions

The output side of the AC wiring of Exide Dlite should never be connected to utility power or a DG set. This condition is far worse than a short circuit. If the unit survives this condition, it will shut down until connections are made.

Installation should ensure that the AC output of Exide Dlite should not be connected to AC input.

Note: Connecting the battery cables to the Exide Dlite battery terminals may cause spark, usually accompanied by a “snap”. This is normal, don't let it scare you. Never disconnect battery cables while the Exide Dlite is delivering power or battery charger is operating. Always turn the switch off first.

General Precautions

- Before installing, connecting any wiring or using the Exide Dlite, read all instructions of this instruction manual.
- **CAUTION:** Do not install or connect batteries to this unit unless instructed to do so. Failure to comply with this instruction can cause damage or complete failure of the unit.
- **CAUTION:** To reduce risk of injury, use only deep-cycle lead acid batteries.
- Do not expose the system to rain, snow or liquids of any type. Do not disassemble the system; call EXIDE authorised service centre when service or repair is required. In correct reassembly may result in a risk of electric shock or fire.
- To reduce risk of electric shock, disconnect all the wiring from the system before attempting any maintenance cleaning. Turning off the system will not reduce this risk
- **WARNING:** WORKING IN VICINITY OF A LEAD ACID BATTERY IS DANGEROUS.
- Be extra cautious when working with metal tools on, or around batteries. The potential exists to drop a tool and short-circuit the batteries or other electrical parts resulting in sparks that could cause an explosion
- Do not leave batteries in discharge state for more than a day or two. They will undergo a chemical process called sulfation which can permanently damage the battery. Also batteries will self-discharge over a period of 3-6 months, so they should periodically recharge even if they are not being used.
- **GROUNDING INSTRUCTIONS:** The Exide Dlite should be connected to a grounded, permanent wiring system.

Personal Precautions

- Someone should be within your audible range to come to your aid when you work near batteries.
- Have plenty of fresh water and soap nearby in case battery acid contacts skin, clothing or eyes
- Wear complete eye protection and clothing protection. Avoid touching eyes while working near batteries. Wash hands when done.
- If battery acid contacts skin or clothing, wash immediately with soap and water. If acid enters eyes, immediately flood eyes with running cool water for at least 15 minutes and get medical attention immediately.
- Never attempt to charge a frozen battery.
- Before touching battery terminals make sure that the system front system is OFF and AC mains to the Exide Dlite are also OFF.
- NEVER smoke or allow spark or flame in vicinity of the batteries.
- Remove personal metal items such as rings, bracelets, necklaces and watches when working electrical circuit. These items can cause a short circuit current high enough to weld a ring and may cause severe burns
- If it is necessary to remove any battery, always remove the grounded terminal from the battery first. Make sure all the accessories are off, so as not to cause arcing. Be sure that the area around the battery is well ventilated.
- Clean battery terminals. Be careful not to allow corrosion to come in contact with eyes.
- Study all battery manufacturers' specific precautions and recommended rate of charge.
- Add only distilled water in each cell until battery acid reaches level specified by the battery manufacturer. This helps purge excess gas from cells. Do not over fill. For a battery without caps, carefully follow manufacturer's charging instructions.
- **CATUION: The EXIDE DLITE should be connected to grounded, permanent wire system.**

SPECIAL NOTICES:

1. The Exide Dlite charge is for use with a nominal supply voltage of 12V/ 24V DC.
2. No AC or DC disconnects are provided as an integral part of this system.
3. No over current protection for the battery supply is provided as an integral part of this system. Both AC & DC disconnects must be provided as part of the system installation.
4. No over current protection for the AC output wiring is provided as an integral part of the system. Over current protection of the AC output wiring is provided as part of the system installation.

Charging and Load Chart

Charging Mode

| PARAMETERS | SPECIFICATIONS | | |
|-----------------------|------------------|------------------|-----------------|
| | EXIDE DLITE 300 | EXIDE DLITE 300i | EXIDE DLITE 400 |
| Charging Current | 6Amp \pm 1Amp | 6Amp \pm 1Amp | 6Amp \pm 1Amp |
| Battery Boost Voltage | 14.4V \pm 0.2V | | |
| Battery Float Voltage | 13.7V \pm 0.2V | | |

LOAD CHART EXIDE DLITE*

| Model | EXIDE DLITE 300/ 300i | | | | EXIDE DLITE 400 | | | |
|------------------|-----------------------|----|---|---|-----------------|----|---|---|
| | A | B | C | D | A | B | C | D |
| Options | | | | | | | | |
| Tube light (40W) | 2 | 0 | 5 | 0 | 3 | 0 | 6 | 0 |
| Fan (80W) | 1 | 0 | 0 | 2 | 1 | 0 | 0 | 3 |
| CFL (15W) | 2 | 13 | 0 | 0 | 3 | 16 | 0 | 3 |

* Depending on the actual VA rating/technical specifications of the appliance. Specifications are subject to change without prior notice due to constant R&D effort. Accessories show in the picture is not the standard part of the product.

APPLICATION CHART EXIDE DLITE*

Back-up Power of electrical loads:

- Fan, Tubelight CFL, LED Light
- T.V. Sets, DVD & Music System

Installation

Where to install

The system should be installed in a location that meets the following requirements:

- Dry** – Do not allow to water to drip or splash on the Exide Dlite
- Cool** – The ambient air temperature around the system should be between 0°C to 45°C (32°F to 113°F). Cooler environment is better for the system.
- Ventilation:** Allow at least two inches (5cm) of clearance around the system for air flow.
- Safe:** DO not install the Exide Dlite in the same compartment as batteries or in any compartment which are storing flammable liquids such as gasoline.
- Close to battery** - Install the system as close to the battery as possible in order to minimise the length of cable required to connect the system to the battery. It is better and cheaper to run longer AC wires than longer DC cables.

CAUTIONS! To prevent fire, do not cover or obstruct ventilation openings. Do not install the system in a zero - clearance compartment. Overheating may result.

WARNING! This equipment contains components which tent to produce arcs or sparks. To prevent fire or explosion do not install in compartment containing batteries or flammable materials or in locations which require ignition protected equipment.

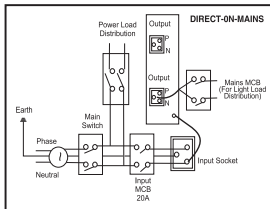
How To Install

DC Cabling :

- Ensure that the ON/OFF switch on the front panel of the Dlite if OFF position before you begin the installation.
- Connect the negative terminal of the battery to the thick black wire of system
- Connect the positive terminal of the battery to the thick red wire of system

AC Cabling:

Plug in the power cord to the mains socket on the wall. The cabling should have proper earthing. Connect AC input supply to the 3 way terminal of the system such that the line is connected to 'L', neutral is connected to 'N' and earth is connected to 'E'. Input supply should remain ON once the system is installed. Take out from output socket.



Start Operation

Once the AC and DC wiring have been installed and connected, take a moment to go re-examine all the connections and make sure they are secured and in the proper terminals.

1. Check to see that the Exide Dlite is turned off and then apply battery (DC) power to it. Ensure that all wiring has been installed properly. Next turn On the battery bank DC disconnects or connect the proper fuse in line to the battery to complete the battery circuit.
2. Put ON/OFF switch to the ON position. This system should run a load without AC input (battery only). Place a load on the system and make sure it works.
3. To charge your batteries connect AC power to the system by lugging in the AC power and turning on the mains line. This shows that charger is working properly. Any AC load powered by the system should also work at this point since a portion of the AC power is passed through this Exide Dlite to power the loads.
4. Disconnect the AC power the system should transfer to battery mode immediately. This will be indicated by clicking sound as the internal transfer relay changes position.
5. The system will begin to take power from the batteries and use it to power the load. And the load continues to operate uninterrupted.

The above steps will complete the functional test of the Exide Dlite. If all areas pass, the system is ready for use. If something fail figure out the reason before proceeding or contact the service centre

Maintenance

Very little maintenance is required to keep your Exide DLite operating properly. You should clean the exterior of the unit periodically with a damp cloth to prevent accumulation of dust and dirt

Troubleshooting Guide

| Problems and | Possible Cause | Solution |
|--|---|---|
| No Output voltage No Indication | Poor battery condition or battery connection loose | Use new battery or make proper connections |
| No output voltage Overload indication | Excess Load Applied | Reduce the excessive load from the Exide DLite & reset by ON/OFF Switch |
| No output voltage All LED Blinking | Thermal shut down | Call the service support. There is overheating problem in the system |
| Mains LED Blinking with Buzzer | Thermal Circuit Breaker Trip | Reset Thermal Circuit Breaker |

Technical Specifications

| Parameter | Model with Rating | | |
|--|-----------------------|------------------|-----------------|
| | EXIDE DLITE 300 | EXIDE DLITE 300i | EXIDE DLITE 400 |
| No Load Output Voltage | 235V \pm 10V | | |
| Output Frequency | 50Hz \pm 1Hz | | |
| Output Wave Form | Modified Square Wave | | |
| Nominal Battery Voltage | 12V | | |
| Battery Low Cut Off | 10.5V \pm 0.2V | | |
| Mains Input Voltage Range (at Normal Mode) | 100V - 290V \pm 10V | | |
| Changeover Time - Mains to Back-up (Normal Mode) | \leq 40 msec | | |
| Changeover Time - Back-up to Mains (Normal Mode) | \leq 10 msec | | |