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MIDTRONICS



xPD-1K12 Series

Pack Discharging Tool

Safety Manual

Product Warning Labels

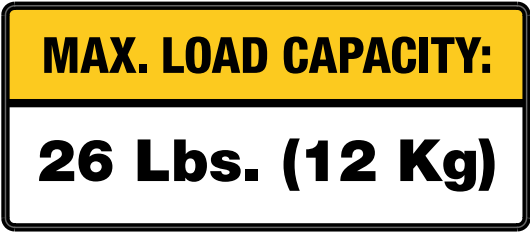
Hot Surface Warning



Fuse Warning



Top Tray Maximum Load



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1 Maintenance

- SAVE THESE INSTRUCTIONS - This manual contains important instructions that shall be followed during installation, operation and maintenance of the unit.
- Periodic inspection and care are highly recommended, especially if the xPD-1K12 is operating in a harsh environment.
- Inspect for signs of overheating, rust, paint deterioration and general condition of the unit. If corrective measures should be taken, contact Midtronics. [Contact information on back cover.](#)
- Removal of dust, dirt and debris from the external enclosure surfaces is encouraged and may be performed while the unit is in operation.



IMPORTANT: No user-serviceable parts are inside the xPD-1K12. No unauthorized personnel should ever remove the cover.

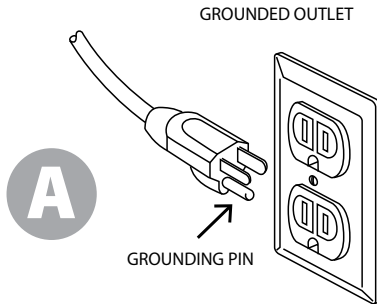
2 Personal Precautions

- Always wear all personal protective equipment (PPE) defined by battery manufacturer, vehicle OEM and regulating bodies when working with batteries supported by the xPD-1K12
- Have plenty of fresh water and soap nearby in case battery electrolyte contacts skin, clothing or eyes.
- If battery electrolyte contacts skin or clothing, wash immediately with soap and water. If electrolyte enters the eye, immediately flush with cold running water for at least 10 minutes, and seek medical attention.
- NEVER smoke or allow a spark or flame in vicinity of a battery or engine.
- Before working with a battery, remove personal metal items such as rings, bracelets, necklaces, watches, etc. A battery can produce a short circuit current high enough to weld such items causing a severe burns.
- The xPD-1K12 is not intended to supply power to a low-voltage electrical system other than applications using rechargeable batteries.
- NEVER charge a battery outside of recommended operating temperature range as defined by battery manufacturer or OEM. Allow battery to come within operating temperature range of xPD-1K12 and battery operating range prior to charging. equipment must be grounded properly for both personnel and equipment safety.
- Ensure that the AC power line ground is connected properly to the xPD-1K12 input connector or chassis. Similarly, other power ground lines including those to application and maintenance equipment must be grounded properly for both personnel and equipment safety.

- In normal operation, the operator does not have access to hazardous voltages within the chassis. However, depending on the user's application configuration, **HIGH VOLTAGES HAZARDOUS TO HUMAN SAFETY** may be normally generated on the output terminals. The customer/user must ensure that the output power lines are labeled properly as to the safety hazards and that any inadvertent contact with hazardous voltages is eliminated.
- This xPD-1K12 is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the xPD-1K12 by a person responsible for their safety
- To reduce risk of battery explosion, follow these safety instructions and those published by the battery manufacturer and the manufacturer of any equipment you intend to use in the vicinity of a battery. Review cautionary marking on these products and on the engine, and on the vehicle or equipment containing the battery.
- If you are uncertain as to the type of battery you are attempting to charge, or the correct procedure for checking the battery's state of charge, contact the seller or battery manufacturer.
- Use of an attachment not recommended or sold by the xPD-1K12 manufacturer may result in a risk of fire, electric shock, or injury to persons.
- To reduce risk of damage to the electric plug and cord, pull by the plug rather than by the cord when disconnecting the xPD-1K12.
- Do not operate the xPD-1K12 if it has received a sharp blow, been dropped or otherwise damaged in any way; contact Midtronics (see contact information on back cover).
- Do not disassemble the xPD-1K12; when repair is required contact nearest Midtronics regional office (see back cover of this manual for locations and contact information). Incorrect reassembly may result in a risk of electric shock or fire.
- To reduce risk of electric shock, unplug the xPD-1K12 from the AC outlet before attempting any maintenance or cleaning. Turning off the controls will not reduce this risk
- Connect and disconnect the battery leads only when directed to do so by the xPD-1K12.
- Do not overcharge the battery (See Section 3).
- Charge the battery in a dry, well-ventilated area.
- Never place articles on or around the xPD-1K12, or locate the xPD-1K12 in a way that will restrict the flow of cooling air through the cabinet.
- An extension cord should not be used with xPD-1K12.
- Have a damaged cord or plug replaced immediately.

3 Grounding & Power Cord Connections

- The xPD-1K12 must be grounded to reduce risk of electric shock. The xPD-1K12 is equipped with an electric cord having an equipment grounding conductor and a grounding plug. The plug must be plugged into an outlet that is properly installed and grounded in accordance with all local codes and ordinances.
- **IF THE PLUG DOES NOT FIT THE OUTLET, HAVE A PROPER OUTLET INSTALLED BY A QUALIFIED ELECTRICIAN.**
- This xPD-1K12 is for use on a nominal 120 volts or 240 volts circuit. The 120V grounding plug looks like the plug illustrated in Figure A.



- Use of an extension cord could result in a risk of fire and electric shock.
- The plugs and receptacles have dedicated grounding terminals and must be mated with plugs and receptacles having matching grounding terminals.
- The xPD-1K12 shall be used with a power cord adequately rated for use with the tool. Using a detachable power cord with inadequate specifications could result in a risk of fire and electric shock.

4 Unit Components

Front View



1 Touch Screen Display

3 Work Tray

2 Bar Code Scanner

4 Emergency Stop

Side View



1 Power Switch

4 Diagnostic Port

2 AC Power Cord Port

5 High Voltage Cable Port

3 LV Cable Port

6 Hot Air Exhaust

5 xPD-1K12 Location

- It is the responsibility of the operator to provide a controlled environment for the equipment.
- The xPD-1K12 is designed for indoor use only. Do not operate the xPD-1K12 outdoors. Operation of the xPD-1K12 in an outdoor environment can result in equipment damage.

NOTICE

The xPD-1K12 is designed for indoor use only.
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IMPORTANT: The xPD-1K12 is designed for indoor use only!


- The xPD-1K12 depends upon the surrounding air for cooling. The free flow of air is important, as is the air temperature. The xPD-1K12 must be positioned so that air can freely circulate all around it.
- Do not place combustible materials on or near the xPD-1K12
- Do not mount the xPD-1K12 closer than 3 inches from any adjacent wall.
- The xPD-1K12 must never be mounted next to or above equipment or appliances that generate heat.
- Locate the xPD-1K12 as far away from the battery as the cables permit.
- Never place the xPD-1K12 directly above the battery being discharged.
- Only operate the xPD-1K12 in a well-ventilated area that is free of dangerous vapors.
- Do not operate the xPD-1K12 in high relative humidity conditions (Tool Maximum: 85% non-condensing).
- When using the xPD-1K12 follow all regulations for the locality in which the equipment is used.

6 Storage

- Store the xPD-1K12 in safe, dry location.

7 xPD-1K12 Specifications

Power

- AC Input: 100 – 240 , 50/60 Hz;
6A max.
Voltage Tolerance: +/- 10%
- DC Battery Input: 1000 VDC max.,
40A Max.
12.5kW max.

Power Cord

Accepts C19 locking connector for region-specific power cables:

- United States: NEMA 5-15 termination, rated at 15A/125V UL CSA
- EU: CEE 7/7 Plug, rated at 16A/250V VDE
- UK: BS 1363 Plug, rated at 13A/250V UL ASTA

DC Cables

- 3m (9.84 Ft.)

Applications

Battery Discharge

Battery Chemistries

- Lithium ion
- Lithium Ion Phosphate
- Nickel Metal

Operating Parameters

- Operating temperature range: 0°C to +50°C (32°F to 140°F)
- Storage temperature range: -10°C to + 85°C (14°F to 185°F)
- Humidity: 15% to 85% R.H., non-condensing at 22°C (71.7°F)
- Max. Altitude: 2000m
- Pollution Degree: 2

Dimensions

- 58.0 cm L x 60.0 cm W x 37.0 cm H (22.83 in. L x 23.62 in W x 14.56 in H)
- Weight: 25 kG (55.11 LBS)

Connectivity

- USB 2.0 connection
- Bluetooth 2.0
- WiFi

Protection Features

- Reverse polarity protection

Certifications

- | | |
|-----------------|------------------|
| • CE | • FCC |
| • ROHS | • UL 61010 |
| • CSA 61010 | • IEC 61010 |
| • IEC 61000-4-2 | • IEC 61000-4-3 |
| • IEC 61000-4-4 | • IEC 61000-4-5 |
| • IEC 61000-4-6 | • IEC 61000-4-11 |
| • IEC 61000-6-4 | |

Connectivity

- USB 2.0 connection
- CAN bus interface
- Bluetooth 2.0
- WiFi

Protection Features

- Reverse polarity

User Interface

- Advanced navigation and charge applications
- 10.1" Touch Screen

8 Maintenance

- No user-serviceable parts are inside the xPD-1K12. No unauthorized personnel should ever remove the cover.
- Unit can be cleaned with a dry cloth when cooled and unplugged from all sources and batteries.

9 Patents

- This product is made by Midtronics, Inc., and is protected by one or more U.S. and foreign patents. For specific patent information, contact Midtronics, Inc. at +1 630 323-2800

10 Service

- To obtain service, contact the Midtronics office in your region (see address block below).
- Have your model number and serial numbers at hand.
This first step is critical as Midtronics will troubleshoot the problem(s) over the phone, and many problem(s) are resolved during this step. If the problem cannot be resolved, the Customer Service Agent will issue a **Return Material Authorization (RMA)** number and provide instructions on where to ship your equipment. The RMA number becomes your tracking number when communicating with Midtronics.
- The final step is to pack the equipment to avoid damage in transit and return the equipment freight prepaid (you pay), to the attention of the RMA number and the address provided by the Customer Service Agent.
- Midtronics or it's designee will repair and return the unit using the same shipping service level as received. If it is determined that the failure was caused by misuse, alteration, accident or abnormal condition of operation or handling, purchaser will be billed for the repaired product and it will be returned freight prepaid with the shipping & handling charges added to the invoice.
Midtronics' products beyond the warranty period are subject to the repair charges in place at that time.
Out-of-warranty repairs carry a 6-month warranty.



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