

Bietrun DX-GAC2000W

Bietrun 2000W Pure Sine Wave Inverter User Manual

Model: DX-GAC2000W

1. INTRODUCTION

This manual provides essential information for the safe and efficient operation of your Bietrun 2000W Pure Sine Wave Inverter. Please read it thoroughly before installation and use, and retain it for future reference.

Package Contents

Verify that all items are present in the package:

- 1 x Bietrun 2000W Pure Sine Wave Inverter
- 2 x 10AWG 3-foot Battery Cables (Red and Black)
- 1 x Ground Cable
- 1 x Remote Control
- 4 x Fuses
- 1 x Small Wrench
- Mounting Screws



Image 1.1: The Bietrunk 2000W Pure Sine Wave Inverter with its remote control, battery cables, ground cable, fuses, and wrench.

2. SAFETY INSTRUCTIONS

Observe the following safety precautions to prevent injury and damage to the inverter or connected devices:

- Do not open the inverter casing. There are no user-serviceable parts inside.
- Ensure proper ventilation around the inverter. Do not block cooling vents.
- Keep the inverter away from water, moisture, flammable materials, and direct sunlight.
- Connect the inverter only to a 12V DC power source. Connecting to other voltages may cause damage.
- Ensure correct polarity when connecting battery cables (Red to Positive, Black to Negative). Reverse polarity will cause damage.
- Always connect the ground cable to a proper earth ground.
- Do not exceed the inverter's rated continuous power output (2000W) or peak surge power (4000W).
- Disconnect the inverter from the battery before performing any maintenance or cleaning.

Integrated Protection Features

The inverter includes multiple protection mechanisms:

- Overload Protection

- Low Voltage Protection
- GFCI Protection
- Overvoltage Protection
- Overtemperature Protection
- Short Circuit Protection
- Reverse Connection Protection
- Over Current Protection

Advanced Security Protection System

Multiple protections to keep your equipment running safely



Overload protection



Low Voltage Protection



GFCI Protection



Overvoltage Protection



Overtemperature Protection



Short Circuit Protection



Reverse Connection Protection



Over Current Protection



Powerful Dual Cooling Fans
Fast cooling, long-term operation



Image 2.1: Visual representation of the inverter's comprehensive safety protection system.

3. PRODUCT FEATURES

The Bietrun 2000W Pure Sine Wave Inverter is designed for reliable power conversion with advanced features:

- **Pure Sine Wave Output:** Provides high-quality AC power (THD < 3%) suitable for sensitive electronics, ensuring stable operation and minimizing damage risk.
- **High Efficiency:** Conversion efficiency exceeding 90% reduces energy loss.
- **Continuous Power:** Delivers 2000W continuous power with a 4000W peak surge capacity.

- **Versatile Output:** Features 4 AC outlets, 1 AC wiring terminal, 2 USB ports (5V/2.1A), and 1 Type-C port (5V/2.1A).
- **HD LED Display:** Provides real-time status updates including input/output voltage, charging status, battery status, current power, and fault codes.
- **Remote Control:** Allows for convenient power management from a distance.
- **Quiet Operation:** High-efficiency cooling system with a low-noise fan maintains optimal operating temperature.
- **Compact and Durable Design:** Encased in rugged Aluminum Alloy, with dimensions of 19 x 10 x 7 inches and a weight of 12.5 lbs.

2025 New Professionally Designed Latest Inverter

Makes your appliances run more perfectly

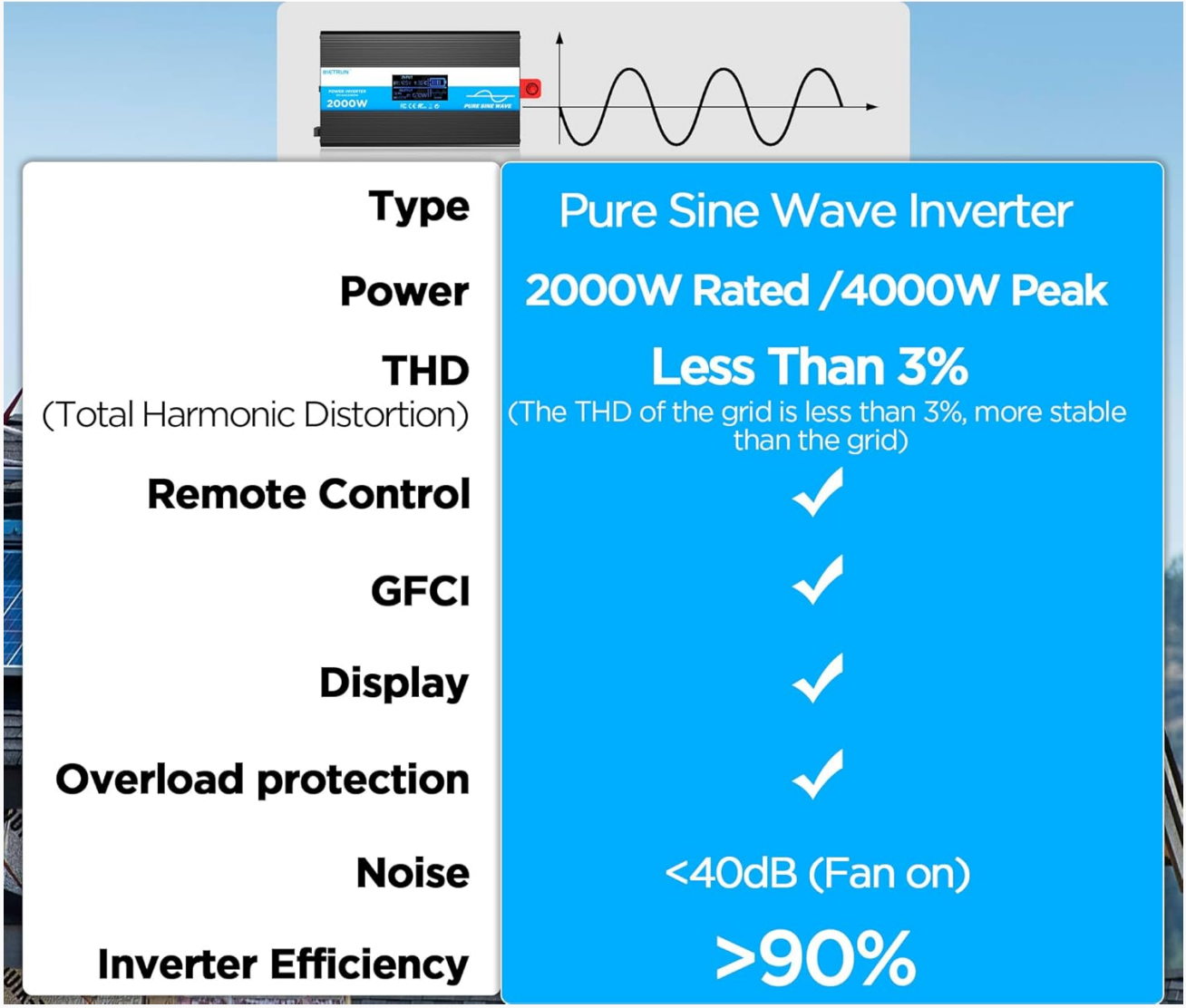



Image 3.1: Key features of the Bietrun 2000W Pure Sine Wave Inverter.



Conversion Efficiency Exceeding 90%
it significantly reduces energy loss.

Type	Pure Sine Wave Inverter
Power	2000W Rated /4000W Peak
THD (Total Harmonic Distortion)	Less Than 3% (The THD of the grid is less than 3%, more stable than the grid)
Remote Control	✓
GFCI	✓
Display	✓
Overload protection	✓
Noise	<40dB (Fan on)
Inverter Efficiency	>90%

Image 3.2: Illustrates the stable, grid-like output of a pure sine wave inverter compared to unstable power from other types.

4. SETUP AND INSTALLATION

Location and Mounting

Choose a dry, well-ventilated location away from direct sunlight, heat sources, and flammable materials. The inverter can be wall-mounted using the provided screws.

Battery Compatibility

The inverter is compatible with various 12V battery types, including LiFePO4, LI, SLD, GEL, FLD, and AGM batteries.

Universal Compatibility

Compatible with most car batteries with 12V power supply



Up to Most Vehicles



for LiFePO₄, LI, SLD, GEL, FLD, AGM 12V batteries



Image 4.1: The inverter supports multiple 12V battery chemistries.

Connection Steps

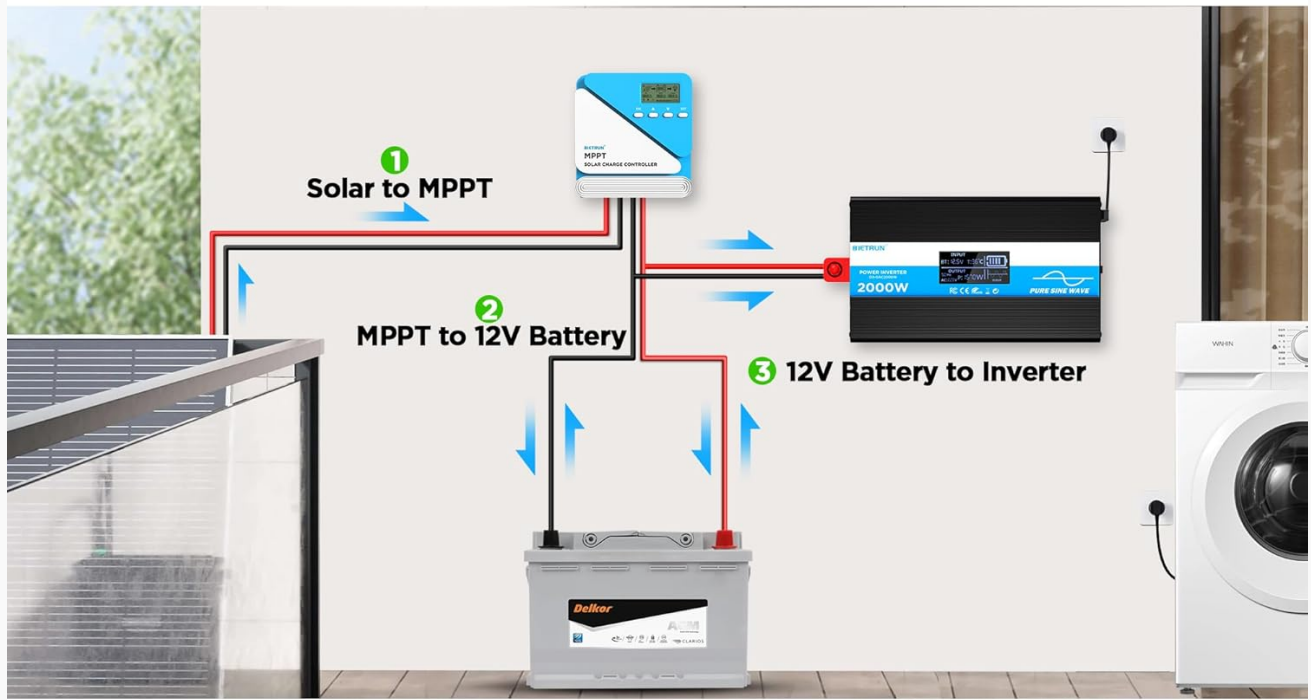
1. **Prepare Cables:** Use the provided 10AWG 3-foot cables. Ensure all connections are secure.
2. **Connect Ground Cable:** Attach the green/yellow ground cable to the inverter's ground terminal and to a reliable earth ground point.
3. **Connect Battery Cables:**
 - Connect the **red** battery cable to the inverter's **positive (+)** terminal.
 - Connect the **black** battery cable to the inverter's **negative (-)** terminal.
 - Connect the other end of the **red** cable to the battery's **positive (+)** terminal.
 - Connect the other end of the **black** cable to the battery's **negative (-)** terminal.

Important: Ensure correct polarity. A spark may occur during the final connection, which is normal due to capacitor charging.

4. **Secure Connections:** Double-check all connections for tightness to prevent loose contacts and overheating.

Solar System and Battery System Installation Diagram

Compatible with solar system and battery system, easy to install



How To Connect



Inverter
(included)



2*10AWG Cable
(Included)



Battery
(Not included)

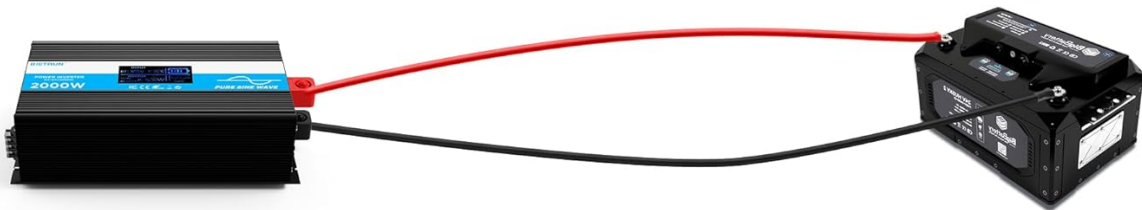


Image 4.2: Basic wiring diagram for connecting the inverter to a 12V battery.

Inverter Interface Overview

Easy to use - USA standard interface

4 110V outputs, 2 5V USB+Type C outputs, 2 sets of power ports



Image 4.3: Front panel layout with output interfaces and controls.

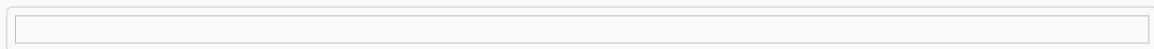


Image 4.4: Rear panel layout with battery input terminals and cooling fans.

5. OPERATION

Powering On/Off

- **Manual Operation:** Flip the ON/OFF switch on the inverter to the 'ON' position to power on. Flip to 'OFF' to power off.
- **Remote Control Operation:** Ensure the inverter's 'REMOTE' switch is in the 'ON' position. Use the ON/OFF buttons on the remote control to operate the inverter.

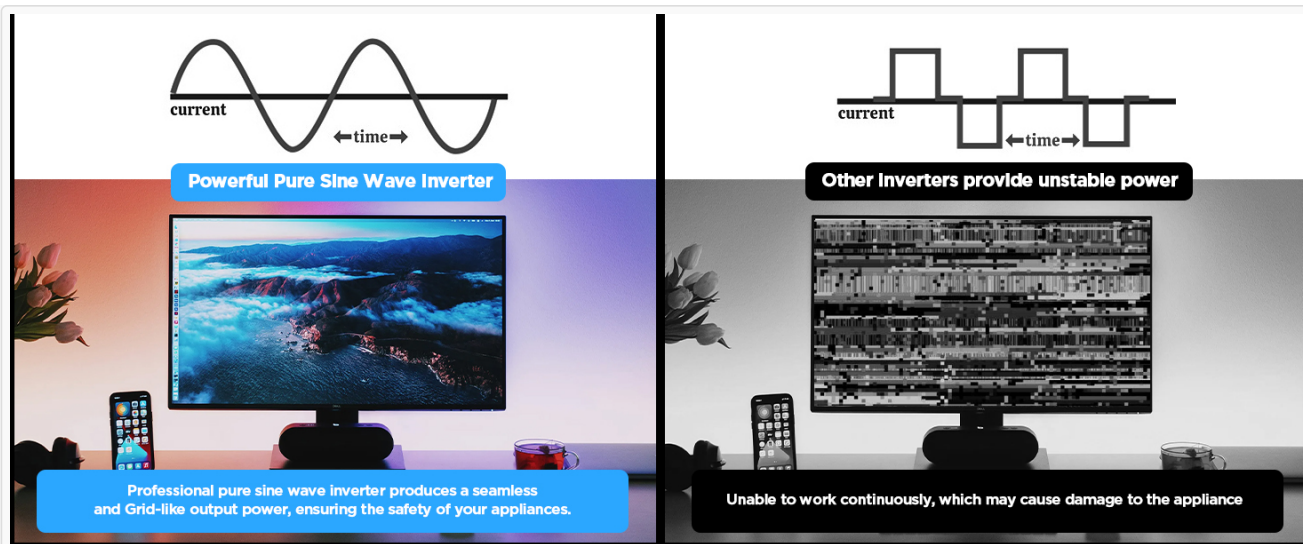


Image 5.1: The remote control allows for convenient operation.

Connecting Devices

Once the inverter is powered on, plug your AC devices into the AC outlets or connect to the AC wiring terminal. USB devices can be connected to the USB or Type-C ports.

Ensure the total power consumption of all connected devices does not exceed 2000W continuously.

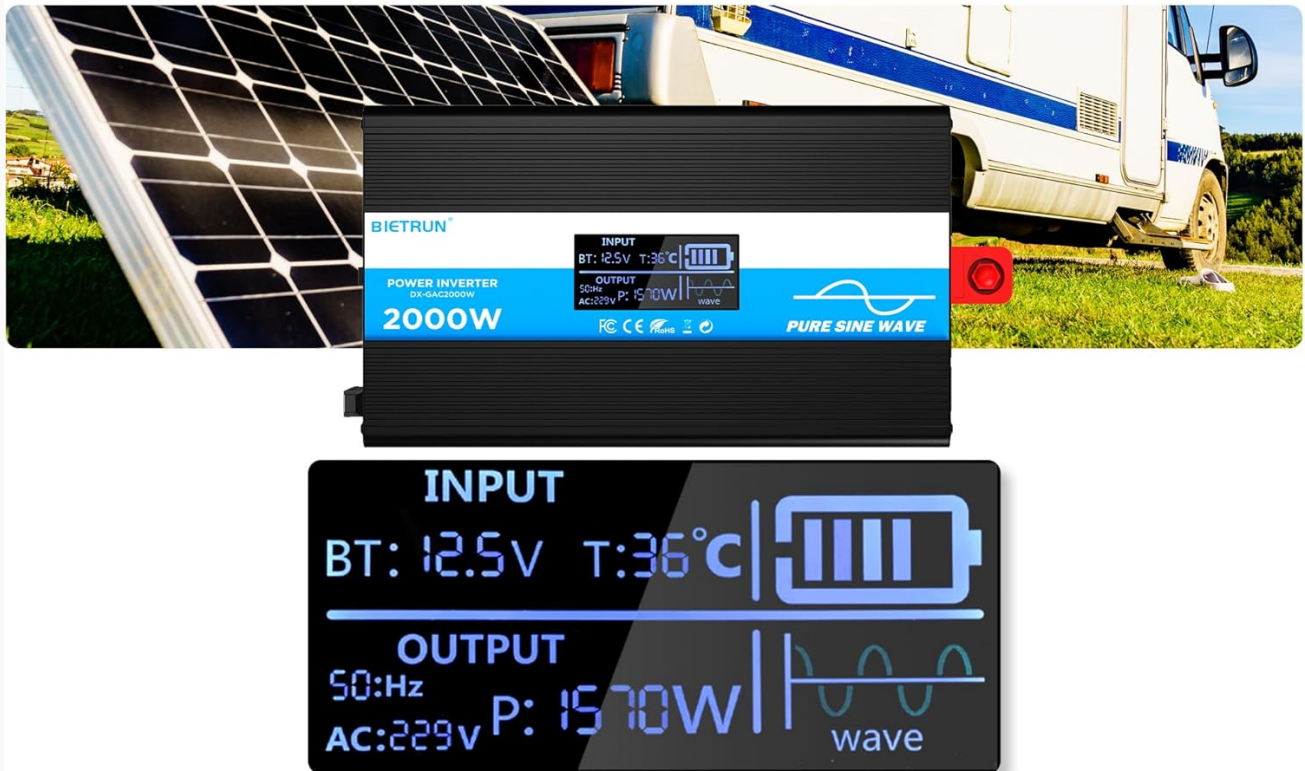
6. HD DISPLAY INFORMATION

The integrated HD display provides real-time operational data and fault indications:

- **Input:** Displays battery voltage (BT) and internal temperature (T).
- **Output:** Shows output frequency (Hz), AC voltage (AC), and current power consumption (P).
- **Battery Status:** Visual indicator of battery charge level.
- **Waveform:** Indicates pure sine wave output.
- **Fault Codes:** Numeric codes appear for specific issues, aiding in troubleshooting.

Powerful Display and Setup Functions

Output voltage and frequency can be adjusted in a small range using tools



Fault Code Descriptions

2 Low Voltage Warning	5 Overload Warning	
3 Overvoltage Protection	6 Overload Protection	8 Output Short Circuit Protection
4 Low Voltage Protection	7 Overtemperature Protection	

Image 6.1: The HD display provides comprehensive status updates and fault codes.

Fault Code Descriptions

- 2: Low Voltage Warning
- 3: Overvoltage Protection
- 4: Low Voltage Protection
- 5: Overload Warning
- 6: Overload Protection
- 7: Overtemperature Protection
- 8: Output Short Circuit Protection

7. TROUBLESHOOTING

If the inverter is not functioning correctly, refer to the display for fault codes and consult the table below:

Problem	Possible Cause	Solution
Inverter does not turn on	Loose battery connections, low battery voltage, faulty fuse.	Check battery cable connections. Recharge or replace battery. Check and replace fuses if blown.
No AC output (Fault Code 8)	Output short circuit.	Disconnect all AC loads. Check for short circuits in connected devices or wiring. Reconnect one by one.
Overload warning/protection (Fault Code 5/6)	Connected load exceeds inverter's capacity.	Reduce the total power of connected devices. Disconnect high-power appliances.
Low voltage warning/protection (Fault Code 2/4)	Battery voltage is too low.	Recharge the battery. Check battery health.
Overvoltage protection (Fault Code 3)	Input voltage is too high.	Verify battery voltage is within the 12V range. Disconnect from charging source if overcharging.
Overtemperature protection (Fault Code 7)	Inverter is overheating.	Ensure adequate ventilation. Reduce load. Allow inverter to cool down. Clean fan vents if obstructed.

If the fault persists after attempting the solutions, contact customer support.

8. SPECIFICATIONS

Feature	Specification
Model Number	DX-GAC2000W
Continuous Power	2000W
Peak Surge Power	4000W
Input Voltage	DC 12V
Output Voltage	AC 110V-120V
Output Waveform	Pure Sine Wave
Total Harmonic Distortion (THD)	< 3%
Conversion Efficiency	> 90%
AC Outlets	4
USB Ports	2 (5V/2.1A)
Type-C Port	1 (5V/2.1A)
Dimensions (L x W x H)	19 x 10 x 7 inches

Feature	Specification
Item Weight	11.13 pounds
Cooling System	Dual Cooling Fans

9. MAINTENANCE

Regular maintenance ensures optimal performance and longevity of your inverter:

- **Cleaning:** Periodically clean the exterior of the inverter with a dry, soft cloth. Ensure cooling vents are free from dust and debris. Do not use liquid cleaners.
- **Connection Check:** Regularly inspect battery cable connections for tightness and corrosion. Clean any corrosion with a wire brush and baking soda solution.
- **Ventilation:** Ensure the inverter always has adequate airflow. Do not operate in enclosed spaces without ventilation.
- **Fuse Replacement:** If a fuse blows, replace it only with a fuse of the same type and rating as specified in the package contents.


10. WARRANTY AND SUPPORT






For warranty information or technical support, please refer to the contact details provided with your purchase or visit the official Bietrun website. Keep your purchase receipt as proof of purchase.



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Related Documents - DX-GAC2000W

	<p>KEYENCE DX Series Handheld Terminal Instruction Manual - Safety, Specifications, and Usage Guide</p> <p>Comprehensive instruction manual for KEYENCE DX Series handheld terminals (DX-A600, DX-A600GE, DX-A400, DX-A400GE, DX-W600 models). Covers safety precautions, regulatory compliance (FCC, ISED, CE, UKCA, UL), unit installation, cleaning, specifications, and warranty information.</p>
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	<p>KEYENCE DX Series Handheld Terminal Instruction Manual</p> <p>Instruction manual for the KEYENCE DX Series handheld terminals, covering safety precautions, regulations, installation, specifications, and handling for models DX-A600, DX-A600GE, DX-A400, DX-A400GE, and DX-W600.</p>
	<p>Entel DX-IS Land Series Quick Start User Guide Intrinsically Safe Radios</p> <p>Quick start guide for the Entel DX-IS Land Series intrinsically safe two-way radios. Learn about packing, battery charging, controls, indicators, accessories, and basic operation.</p>
	<p>Entel DX-IS Land Series Quick Start User Guide</p> <p>Quick start guide for the Entel DX-IS Land Series intrinsically safe two-way radios, covering setup, controls, battery information, and basic operation. Includes accessory compatibility and compliance details.</p>
	<p>Eaton PowerXL DX-BR Braking Resistors: Installation and Safety Guide</p> <p>Comprehensive guide for Eaton PowerXL DX-BR braking resistors, covering installation, dimensions, weights, mounting, and safety precautions. Includes technical specifications and model information.</p>
	<p>Keyence DX Series Handheld Terminal Instruction Manual</p> <p>This instruction manual provides essential safety precautions, operational guidelines, and technical specifications for the Keyence DX Series Handheld Terminal, including models DX-A600, DX-A600GE, DX-A400, DX-A400GE, and DX-W600. It covers topics such as LED and laser safety, regulatory compliance (FCC, CE, UKCA, ISED), installation of microSD and SIM cards, handling, cleaning, and specifications.</p>