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## Battery Service Equipment Set (BSES ) NSN: 6130-01-541-9731

Part # 746x100 - **Army CLIX – Authorized in any Army maintenance shop.**

This is a fully functional battery maintenance tool kit, which can be easily packed and shipped as needed with no need for additional vehicles or trailers.

The BSES kit comes with all the below items to immediately set up a battery maintenance (diagnostics, charging, and maintaining) operation anywhere in the world.

- 1 each – 490PT+ Battery Analyzer
- 10 each – MBT-1 Mini Battery Testers
- 1 each – Pro-HD 12/24V Charger
- 1 each – HD Pallet Charger
- 1 each – Redi-Pulse Pro-12 Maintainer



Pro-12 Battery Maintainer

NSN: 6130-01-535-2718  
Part # 746x912 - **Army CLIX**



490PT+ Battery Analyzer  
NSN 6130-01-510-9594  
Part # 741x491



Mini Battery Load Tester  
NSN: 6625-01-463-8499  
Part # 741x800 - **Army CLIX**



Pro-HD 12/24V Charger  
NSN: 6130-01-500-3401  
Part # 746x800



HD Pallet Charger  
NSN: 6130-01-532-7711  
Part # 746x820 - **Army CLIX**

**Pro-HD Charger:**  
**NSN: 6130-01-500-3401**  
**Part# 746x800**  
 Army: Standard Charger on SATS  
 USMC: LABM / TAMCN: K00032  
 AF: TO 1-1A-15 Authorized



Drop-in complete replacement Insert



Troubleshooting info available:  
 Contact your supporting FSR



The Pro-HD is an auto sensing 12/24V, 50 Amp charger designed to charge any type of lead acid battery (AGM, GEL, or flooded cell) using the supplied clamps or NATO connector. It uses universal electrical input (110Vac – 250Vac). Smart charging with one-switch operation minimizes operator training requirements.



Example: Pro-HD Charger servicing the primary batteries on a JLTV.

Replacement Parts	Part#	NSN
*Complete Replacement Insert. Compatible with all tan colored Pro-HD chargers. The drop-in insert immediately upgrades an older charger to the latest performance standards.	740X831	6130-01-645-5003 Army CLIX
Power Cord - CORD 14/3 – 20A SJTOW 6’3”	740X415	6150-01-618-0289 Army CLIX
10 FT NATO SLAVE cable, with 2” quick disconnect.	740X832	6150-01-548-0939 Army CLIX
10 FT Parrot Clamp cable, with 2” quick disconnect.	740X833	6150-01-697-4954 Army CLIX
45 AMP 110/220 Power Supply - Version E	740X834	6130-01-548-0895
Controller Board – Version E	740X848	5998-01-548-0932

## Pallet Charger:

**NSN: 6130-01-532-7711**

**Part#746x820**

**Army: CLIX – Authorized in any shop.**

**USMC: LABM / TAMCN: K00252**

**AF: TO 1-1A-15 Authorized**



The Pallet Charger is a 12V, 6.5 amp per channel, 12-station charging unit. It uses universal electrical input (110Vac – 250Vac). The charger can be connected to any type or size of 12V lead acid battery (AGM, GEL or flooded cell). Charge stations 1 thru 12 each operate in isolation from one another, allowing any combination of batteries to be recharged at the same time.

### **Example: Pallet Charger in use.**



**Troubleshooting  
info available:  
Contact your  
supporting FSR**

<b>Replacement Parts:</b>	<b>Part#</b>	<b>NSN</b>
<b>Complete, drop-in Pallet Charger Replacement Insert.</b> Comes with all internal charging cards, hardware and advanced cooling fan assy. <b>This insert will immediately upgrade an older Pallet charger to the latest performance standards.</b>	746X805	<b>5998-01-691-0141</b> <b>Army CLIX</b>
Replacement Charging circuit Board.	740X373	5998-01-645-7646 <b>Army CLIX</b>
Charging Cable – 8’ with clamps.	740X375	6150-01-618-5359 <b>Army CLIX</b>
Power Cord - CORD 14/3 -20 A, SJTOW 6’3”	740X415	6150-01-618-0289 <b>Army CLIX</b>
Power Switch	740X411	6110-01-645-8549 <b>Army CLIX</b>
Fan Assembly comes with Fans, Bracket, and power supply	740X362	5340-01-645-9464
Plastic Plug Connector. Cable to charger casing.	740X458	5935-01-645-8488



Troubleshooting info available:  
Contact your supporting FSR



**Pro-PC-12 Benchtop Charger:**  
12 Station NSN: 6130-01-670-6428  
Part # 746x871 - **Army CLIX**  
NAVY: TM 17-15 BAD-1 Authorized

**Pro-PC-6 Benchtop Charger:**  
6 Station NSN: 6130-01-670-6729  
Part # 746x860 - **Army CLIX**  
NAVY: TM 17-15BAD-1 Authorized

**SC-6 Xtreme Charger:**  
6 Station NSN: 6130-01-694-3664  
Part # 746x816

All three chargers use the same charging board as the Pallet Charger. The Pro-PC chargers come in a bench top use configuration, and the SC-6 comes with a hardened case for easy transport.

The charging channels on each of these systems operate in isolation from one another, allowing any combination of batteries to be recharged at the same time. This includes AGM, VRLA, GEL or flooded cell. Max output is 12V, 6.5 amp per channel with our patented high frequency pulsation algorithm at over 25k pulses per second! All systems operate on universal electrical input (110Vac – 250Vac).



<b>Pro-PC Charger Replacement Parts:</b>	<b>NSN</b>
Replacement Charging circuit Board.	5998-01-645-7646 <b>Army CLIX</b>
Charging Cable – 8’ with clamps.	6150-01-618-5359 <b>Army CLIX</b>
Power Cord - CORD 14/3-20A, SJTOW 6’3”	6150-01-618-0289 <b>Army CLIX</b>
Plastic Plug Connector. Cable to charger casing.	5935-01-645-8488



## SC-2 Xtreme Dual station 12V Charger:

NSN: 6130-01-689-4211

Part # 746x814 - **Army CLIX**

Navy GSE NSN, and has been GCSS loaded for Army and USMC use.

The SC-2 is a 12V, 6.5 amp per-channel max output, 2-station charging unit. It uses universal electrical input (110Vac – 250Vac). The charger can be connected to any type or size of 24V lead acid battery (AGM, GEL or flooded cell). The 2 charge channels operate in isolation from one another, allowing any combination of batteries to be recharged at the same time.

The SC-2 Xtreme Dual-Station Charger also uses the same charging board, charge cables, AC power cord, and plastic plug as the Pallet Charger, Pro-PC Chargers, and the SC-6.



## Dual 24V Charger

NSN: 6130-01-609-9818

Part # 746x840 - **Army CLIX**

USMC: LABM / TAMCN: K00382

Army and USMC Charger designed for the small, dense and expensive 3KW Gen Set Battery.

The Dual 24V Charger is a 24V, 3.5 amp per channel, 2-station charging unit. It uses universal electrical input (110Vac – 250Vac). The charger can be connected to any type or size of 24V lead acid battery (AGM, GEL or flooded cell). The 2 charge channels operate in isolation from one another, allowing any combination of batteries to be recharged at the same time.

Example: Dual 24V Charger in use on 3KW Gen set batteries.





## 12V World Charger

**NSN: 6130-01-477-4703**, Part# 746x725  
**Army CLIX** and AF: TO 1-1A-15 Authorized

**USMC NSN: 6130-01-618-4572**, Part# 746x727  
**USMC: LABM / TAMCN: K00012**

The 12V World Charger is a single channel, 12V, 16 amp (20A peak) charger. It uses universal electrical input (110Vac – 250Vac) . The charger can be connected to any type or size of 12V lead acid battery (AGM, GEL or flooded cell).



Example: 12V World Charger in use.



## Pro-12 Battery Maintainer

**NSN: 6130-01-535-2718**  
Part # 746x912 - **Army CLIX**

**USMC: LABM / TAMCN: K00272**  
**AF: TO 1-1A-15 Authorized**

The RediPulse Pro-12® keeps new or recovered batteries from discharging while they are waiting to be used. It has 12 separate channels each capable of maintaining any type 12V lead acid battery (AGM, GEL and flooded). It uses universal electrical input (110Vac – 250Vac) . Reverses the normal discharge rate and patented high frequency patented pulsing reduces sulfation buildup. Reverse polarity protected. LED lights indicate the status of each individual battery. [Replacement AC Power Supply: Part# 735X174 / NSN 6130-01-618-1066](#)



## Single channel Maintainers: 24V NSN 6130-01-521-1329

Part # 735x667 - **Army CLIX**

## 12V NSN 6130-01-521-1765

Part # 735x666 - **Army CLIX**

The PCS Charger Maintainer Pulse Systems are ideal for maintaining 12 or 24-Volt lead-acid batteries (AGM, GEL and flooded) stored inside on a long-term basis. Colored lights indicate AC charge status and battery conditioning. The PCS prevents unused batteries from losing their charge and removes lead sulfate crystals that build up on battery plates. Power supply is reverse polarity protected and the batteries cannot be overcharged.



**390PT Battery Analyzer**  
**NSN 6130-01-580-3882**  
Part # 741x390 - **Army CLIX**

**NAVY: TM 17-15 BAD-1 Authorized**  
**This tester costs less than most batteries!**



**490PT+ Battery Analyzer**  
**NSN 6130-01-510-9594**  
Part # 741x491

**Army: Standard on all SATS**  
**USMC: LABM / TAMCN: K0022**  
**AF: TO 1-1A-15 Authorized**



**890PT Battery Analyzer**  
**NSN Pending**  
**NEW: Part # 741x890**



**Mini Battery Load Tester**  
**NSN: 6625-01-463-8499**  
Part # 741x800 - **Army CLIX**

The MBT-1 makes checking for good and bad 12-Volt lead-acid batteries quick and easy. This weather resistant, mini battery load tester is small enough to slip in a pocket. It's simple to use with a fixed post positive connector and a coil-corded moveable negative connector. Easy to read color coded LEDs. Reverse polarity and over voltage protected

The PulseTech 390PT+, 490PT+ or the 890PT Digital Battery Analyzers allow you to quickly, safely and accurately test lead-acid batteries in or out of a vehicle. There are thousands of built-in testing algorithms that can differentiate the battery configurations of AGM (flat and spiral plates), flooded cell and gel cell batteries to quickly display battery voltage, cold cranking amps, condition of the battery and the state of charge.

**390PT:** Performs analysis of 6-Volt and 12-Volt batteries.

**490PT+:** Performs analysis of 12-Volt batteries and electrical systems. It also has a built-in thermal printer which can serve to preserve a written description of the battery's condition.

**890PT: NEW** - Performs analysis of **6, 12 and 24 Volt batteries** and 12 / 24 electrical systems. Has a built-in thermal printer with an easy-load paper feature for preserving a written description of the battery's condition.

**The 890PT can also test Li-ion batteries!**

**Example:**  
**MBT-1**  
**being used**  
**for a 12V**  
**battery**  
**quick check**





## 24V Solar Pulse Maintainers:

### 24V Pulse Solar Charger 7.2 watt

NSN 6130-01-487-0035

Part # 735x640 - **Army CLIX**

USMC: LABM and AF TO 1-1A-15 Authorized

- For single 24V battery or 2 battery 24V systems.
- Includes installation kit.



### 24V Pulse Solar Charger 12 watt

NSN 6130-01-688-4857

Part # 735x724 - **Army CLIX**

USMC: LABM - authorized use

- For series parallel 24 system, up to 4 batteries.
- Includes installation kit.



### 24V NATO: SPCMS 7.2 Watt

NSN: 6130-01-558-5371

Part # 735x687 - **Army CLIX**

- Nato Plug connection, secured with Velcro strap.
- Temp use, for 2 battery systems while parked.



### 24V NATO Plug Pulse Solar Charger 12 watt

Part # 735x713 – NSN Pending

- For series parallel 24 system, up to 4 batteries.
- Nato Plug connection, secured with Velcro strap.
- Temp use, for equipment while parked.



NSNs Pending:

24V - 12 Watt with clips, Part# 735X690

24V - 25 Watt with clips, Part# 735X689

24V - 25 Watt with Nato, Part# 735X712

### In areas with adequate sunlight:

A 7.2 Watt panel can maintain two 12V batteries in series on any 24V Power Generation system, \*JLTV, HMMWV, and others. \*JLTVs require 2 panels, 1 for primary and 1 for Aux batteries.

A 12-watt panel can maintain up to 4 batteries (series / parallel). This would include FMTV, LHS, PLS, HEMTT, HET, USMC 7.5 Tons, EN Equip, etc.

In areas with less sunlight the 12 watt panel should be considered for use on smaller equipment and there may be a need for 25 Watt panels on larger equipment. Contact your FSR to discuss.

**NOTE:** Your PulseTech FSR can help with determination of the appropriate panel based on location, equipment type, etc.

- They also have a spreadsheet tool they can send ANY unit. It depicts equipment by nomenclature, batteries on that equipment, and recommended CLIX solar maintainer by NSN.

12 and 24V AC and Solar Maintainer kits: All systems are **Army CLIX!**

Part#	NSN	AC Maintainer	Solar Panel	NOTES:
735X661	6130-01-521-1387	24V PCS	24V - 7.2 Watt Panel	24V PCS and Solar Panel
735X641	6117-01-521-3099	None	24V - 7.2 Watt Panel, 24V	Solar panel only.
735X655	6130-01-521-1317	12V PCS	12V - 2.8 Watt	12V PCS and Solar panel
735X676	6130-01-540-3380	24V PCS	Yes - 7.2 Watt Panel, 24V	Removable clamps and comes in a hardened case
735X761	6130-01-675-4994	24V PCS	Yes - 7.2 Watt Panel, 24V	USMC NSN - 24V PCS and Solar Panel
735X776	6130-01-675-7257	24V PCS	Yes - 7.2 Watt Panel, 24V	24V PCS, Solar Panel, and comes with a hardened case



## 12V Solar Pulse Maintainers:

12V 2 Watt Solar Maintainer

**NSN 6130-01-546-8432**

Part # 735x740 - **Army CLIX**

Installation kit included.

**AF: TO 1-1A-15 Authorized**



12V 3 Watt Solar Maintainer

**NSN 6130-01-388-0245**

Part # 735x302 - **Army CLIX**



12V 7 Watt Solar Maintainer

**NSN 6130-01-446-7154**

Part # 735x467 - **Army CLIX**



12V 10 Watt Solar Maintainer

**NSN 6130-01-688-4859**

Part # 735x315 - **Army CLIX**

Installation kit included



12V 12 Watt, Part# 735X468, NSN Pending

12V 25 Watt, Part# 735X325, NSN Pending

### **NOTE:**

In areas with adequate sunlight these panels can maintain batteries on Any 12V equipment when the right size panel is utilized.

12V single battery:

Areas with abundant sunlight: 3 watt

Areas with moderate sunlight: 7 watt

Areas with less sunlight: 10 watt

12V system with 2 batteries paralleled:

Areas with abundant sunlight: 7 watt

Areas with moderate sunlight: 10 watt

Areas with less sunlight: \*10 watt

\*Consult your FSR to ensure proper solar maintainer is used.

Generally, for larger equipment with more than 2batteries paralleled a 10 watt is suggested, but before ordered we suggest contacting your FSR for additional information / options.

**Your supporting FSR can help with determination of the appropriate panel based on location, equipment type, etc.**

## 24V HD Jump Start

**NSN: 6130-01-564-9082**

**Part # 746x700**

**USMC: LABM / TAMCN: K00282**



**Troubleshooting info available:  
 Contact your supporting FSR**

The HD Jump Start is a simple to use 24V jump start system that connects directly to any NATO slave receptacle. The battery pack can be easily removed from the cart for hard-to-reach equipment. **USMC Approved for use on all equipment.**

The system uses advanced AGM lead acid batteries that are non-hazardous and can be shipped safely via any transportation mode. The batteries in the Jump Start are designed to deliver high amperage for starting, and has a built-in charger. Charger can be left plugged into an AC source overnight and weekends. Recommend system be used to jump equipment at least once every week or two to exercise the batteries.

## Replacement Parts for HD Jump Starter:

Item	Part#	NSN
Replacement Battery Pack	746X705	6130-01-618-0951 <b>Army CLIX</b>
Top Assembly, with Battery Charger	746X704	6130-01-618-0970 <b>Army CLIX</b>
Cable, 10' Nato	746X707	6145-01-618-0725 <b>Army CLIX</b>
Trolley, Jump Start, with wheels and tires.	746X714	6130-01-618-0683 <b>Army CLIX</b>
Power Cord - CORD 14/3, SJTOW 6'3"	740X415	6150-01-618-0289 <b>Army CLIX</b>
Wheel and Tire Assembly – 1 each.	746X718	2530-01-699-8219 <b>Army CLIX</b>



## PowerPulse - High Frequency Pulsation Battery Maintainer

**12V NSN: 6130-01-446-7166**

**Part # 735x012**

**24V NSN: 6130-01-417-7509**

**Part # 735x024**

**36V NSN: 6130-01-417-7507**

**Part # 735x036**



The PowerPulse® systems are designed to ensure maximum battery performance on anything from a single 12-Volt lead-acid batteries to series / parallel systems up to 48V.

[PowerPulse systems are not chargers](#), they are performance devices designed to help batteries charge faster and provide maximum performance and power by generating an intermittent, patented high frequency pulse that reduces existing sulfate deposits and keeps them from building up again.

The systems are weather proof, and designed to supplement your existing charging system. They can be powered in two different ways. When the battery is being charged either by an onboard charger or a separate charging system, it will use the charging current as a power source. The rest of the time PowerPulse uses a small portion of the battery's own energy so it is working 24-hours a day, so you don't need an electrical outlet. Accordingly, **these should only be used on vehicles or equipment that is used daily and frequently charged.**



## HD Battery Rack: Part# 715X901

NSN: 4940-01-702-3055

USMC: LABM program Authorized

Army CL2 Expendable – but can be ordered by most Army Maintenance shops.

This heavy-duty free standing Battery Rack is ideal for organizing batteries safely out of the way while they are being stored, charged or maintained. The rack is large / strong enough to easily hold up to 12 batteries and constructed of durable powder coated tubular steel. Consists of 3 shelves.

<b>Battery Capacity:</b>	12
<b>Dimensions:</b>	57.25" X 14" X 48"
<b>Enclosure:</b>	Black Steel
<b>Weight:</b>	200 lbs.
<b>Ship Weight:</b>	250 lbs.
<b>Warranty</b>	Five-Year Limited Warranty



## HD Storage Cases:

White: NSN: 6160-01-461-6165

Part # 740x960 - Army CLIX

Green: NSN: 6130-01-513-5432

Part # 740x961 - Army CLIX

Store, carry or ship your BMMP equipment in one of these durable transport cases with heavy-duty recessed rubber wheels and hardware. Great for shipping any gear that needs HD protection.

- Two heavy-duty recessed rubber wheels
- Fracture & crack-resistant high-density polyethylene shell
- Solvent resistant, will not blister or peel
- 2" Shock absorbent foam lined interior
- Can support a weight of 250 pounds per square inch
- Oversized heavy-duty hardware
- Interior dimensions 35 1/4" L x 18" W x 20" H

**Grid System: NSN: 6130-01-497-0966**

**Part # 735x646 - Army CLIX**

**Army: APS Sites, ARNG CHP and Long-term Storage**

**USMC: Long-term Storage Program**

**NAVY: Seabee Long-Term Storage**

This is a lightweight (109 lbs) flexible system that comes standard with \*everything needed to fit the shape / size of most standard climate humidity control or long-term storage facilities:

- VAC to VDC power supply (with standard 3 prong plug), junction box, wiring, conduits, wire connectors, mounting hardware, drop chains, and much more. Max 8.4A draw at 110 VAC.
- Input power required, 85-265 VAC, Output 30Vdc.
- Capable of supporting up to 30 drop down reels.
- \* Some buildings may require additional mounting hardware.



**24-Volt Drop Pulse & Charge Reel: NSN: 6130-01-497-0971**

**Part # 735x645 - Army CLIX**

**Army: APS Sites, ARNG CHP and Long-term Storage**

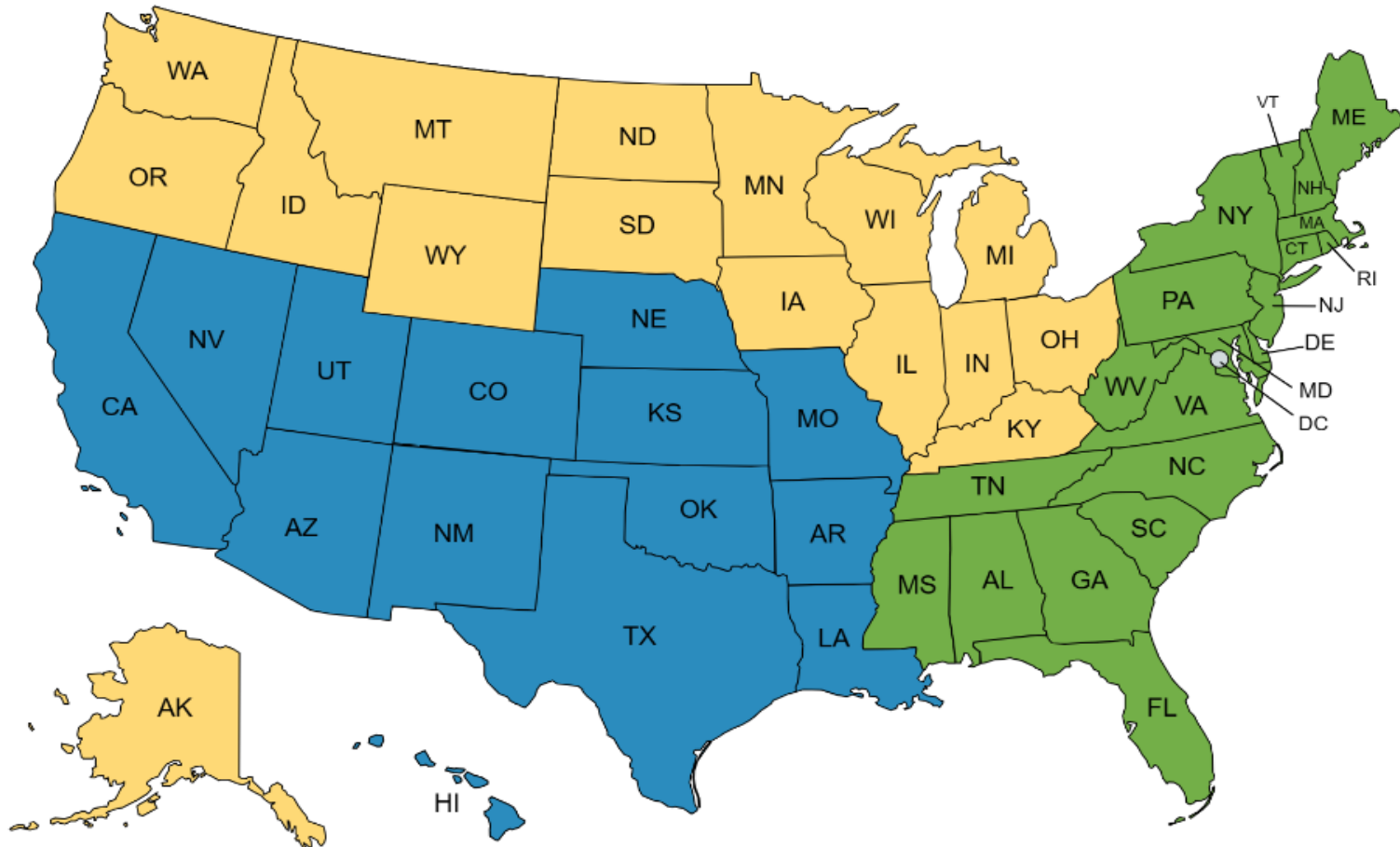
**USMC: Long-term Storage Program**

**NAVY: Seabee Long-Term Storage**

For use with above Grid System: Charges & maintains 24-Volt lead-acid batteries.

- Microprocessor controlled, monitors and charges as needed.
- Never overcharges, LEDs indicate charge status.
- Utilizes optimized high frequency Pulse Technology.
- Retractable 38' cable with a quick disconnect connection.
- 3 connection options: NATO plug clamps, and lug connection.





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