



# INTELLI-START INDUSTRIAL LITHIUM JUMP STARTER



Pour le manuel en français, visitez  
**PROJECTA.US** ou appelez le **1-888-489-9820**.

Para obtener el manual en español, visite  
**PROJECTA.US** o llame al **1-888-489-9820**.



**WARNING:** Cancer and Reproductive Harm.

**ADVERTISSEMENT:** Cancer et problèmes de reproduction.

**ADVERTENCIA:** Cáncer y daño reproductivo.

**[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**

## **IMPORTANT SAFETY INFORMATION**

Please read this manual thoroughly before use and store in a safe place for future reference.

### **WARNINGS**

- This unit has been designed for vehicles with 12V DC and 24V DC electrical systems only.
- Risk of explosive gas. Working in the vicinity of car batteries can be dangerous. Batteries release explosive gases during normal operation, charging and jump starting. Before using this jump starter, read and follow the instructions carefully. Follow all manufacturer's instructions and warnings of the vehicle's battery and other equipment being used.
- Jump start 12V DC or 24V DC automotive lead acid batteries only. Do not use to jump start dry cell batteries commonly found in household appliances. These batteries may burst and cause serious injury and/or property damage.
- Do not smoke, use matches, use a cigarette lighter, or allow a spark or flame near the battery.
- Do not allow metal to come in contact with the battery posts. It may spark or short-circuit the battery and cause an explosion/fire.
- Remove rings, bracelets, necklaces, and watches when working at the vehicle and / or jump starting a vehicle.
- The jump starter contains a sealed non-spillable Lithium Iron Phosphate battery (LiFePO4). This must be disposed of properly.
- Ensure correct polarity when connecting to vehicle.
- The jump starter is not designed to be left outside for extended periods of time or submerged in water.
- Do not store the jumpstarter in temperatures above 113°F (45°C) or below 14°F (-10°C) as this can affect the health of the battery.
- Always wear eye protection when operating the jump starter.
- Although the jump starter has been designed to protect the battery, do not drop the jump starter or attempt to pierce it in anyway. This can result in an explosion and or fire.
- If the jump starter is physically damaged in any way, it should not be used.
- Not intended for people (including children) with reduced physical or mental capability.
- Do not allow positive/red and negative/black clamp touching each other when in override mode and 12V mode.
- Pay careful attention when in manual override; reverse-connection and short-circuit protections are disabled.
- Make sure to have strong clamp connection to starting battery to maximize jump starting current.

## **IMPORTANT CHARGING INFORMATION**

- Charge the jump starter prior to use, using the dock. This may take up to 8 hours.
- Fully recharge the jump starter after every use to ensure your jump starter is ready for use in case of an emergency.
- Do not allow the jump starter battery to become very flat. If the display shows 'Low Battery' ensure the jump starter is charged immediately to ensure the maximum battery life. Refer to "ERROR AND ALARM MESSAGES" section (page 10).
- To extend the life of your jump starter do not let the battery charge level fall below 1 bar.
- To extend the life of the jump starter battery, do not charge in an environment above 113°F (45°C) or below 32°F (0°C).

## **FEATURES**

### **RAPID RECHARGE TECHNOLOGY (RRT)**

- The Lithium Iron Phosphate (LiFeP04) battery can rapidly recover charge from the vehicle's alternator following a successful jump start. Leaving the clamps connected to the vehicle's battery for 40 seconds will recharge the jump starter to 100%<sup>1</sup> of the original charge status. Once the jump starter is fully charged, the RRT will shut off avoiding overcharging.

### **LITHIUM SAFE**

- Intelli-Start Lithium Iron Phosphate (LiFeP04) batteries are specifically designed for cranking therefore purpose built for jump starting and are safer than Lithium Cobalt (LiCo02) battery types. The LiFeP04 batteries provide more starts and have an operational life of up to 2000 battery cycles.

### **JUMP STARTING PERFORMANCE**

- The PJ-IS3000-2 is suitable for starting most 12V DC vehicles up to 12.0L, and all 24V DC vehicles both gas and diesel. The PJ-IS5000-2 is suitable for starting most 12V DC vehicles up to 16.0L, and all 24V DC vehicles both gas and diesel.
- With 40 seconds of rapid recharge, the PJ-IS3000-2 and PJ-IS5000-2 will not need to be recharged during the working day.
- It is recommended that the PJ-IS3000-2 and PJ-IS5000-2 jump starters are charged via the supplied 110V AC charging dock to maximize the jump starter performance.

### **PREMIUM SPARK FREE CLAMPS**

- Ensures safe jump starting.

### **ENGINE BAY SAFE OPERATION**

- The PJ-IS3000-2 & PJ-IS5000-2 jump starters are light and compact, weighing up to 50% less than conventional lead acid jump starters. With best-in-class overmold material which provides secure grip and impact protection allowing users to operate the unit on the engine or starter battery.

## **DESIGN FOR EASY TRANSPORTATION**

- With an ergonomically designed handle, the PJ-IS3000-2 & PJ-IS5000-2 jump starters are portable and compact compared to a conventional high-power lead acid jump starters.

## **HIGH PERFORMANCE BATTERY**

- The high quality 4-cell, 6Ah Lithium Iron Phosphate (LiFePO<sub>4</sub>) battery delivers instant starting power to gas and diesel vehicles. The battery offers longer life, better power density and is inherently safer (compared to lead acid batteries and other lithium batteries e.g., Lithium Cobalt (LiCoO<sub>2</sub>)). It is certified to meet International Standard UN 38.3.

## **ULTRA LONG SHELF LIFE**

- The PJ-IS3000-2 and PJ-IS5000-2 both feature a special circuit designed to prevent the internal battery from consuming current over extended period. Simply put, the user doesn't need to worry about battery depletion over time between uses.

## **AUTOMATIC CELL-BALANCED CHARGE CONTROL**

- Automatically stops charging when the battery is fully charged. This initiates maintenance mode, keeping the battery fully charged and ready for use. You can leave the unit on charge indefinitely without the risk of overcharging.

## **DOCKING STATION FOR 110V AC**

- A slim and stable docking station is provided to allow the PJ-IS3000-2 and PJ-IS5000-2 to be charged from a 110V AC outlet.

## **UNPARALLELED SAFETY AND RELIABILITY**

### **NO SOLDER HIGH CURRENT CONNECTIONS**

- All wired connections within jump starter are crimped and bolted to ensure maximum reliability and current output.

### **REVERSE POLARITY PROTECTION & ALARM**

- Prevents sparking from accidental reverse connection.
- The PJ-IS3000-2 and PJ-IS5000-2 jump starters both display and sound an alarm when the jump starters clamps are connected incorrectly. Refer to "ERROR AND ALARM MESSAGES" section (page 10).

### **OVER-TEMPERATURE PROTECTION**

- The PJ-IS3000-2 and PJ-IS5000-2 jump starters have different layers of temperature protection. Should the unit overheat by continuous or numerous jump starts, the unit will shut off automatically and restart once the over-temperature condition subsides.

### **UNDER AND OVER-VOLTAGE PROTECTION**

- Before the PJ-IS3000-2 and PJ-IS5000-2 jump starters activate the jump start function, they will sound an alarm if the vehicle battery is higher than 30V DC. In addition, the PJ-IS3000-2 and PJ-IS5000-2 will deactivate the jump start function and sound an alarm if the vehicle battery is higher than 14.6V DC on 12V DC vehicle or 30V DC on 24V DC vehicle during jump start.

## BATTERY AND JUMP START STATUS INDICATION

- The PJ-IS3000-2 and PJ-IS5000-2 jump starters utilize a coloured LCD display and backlit buttons to inform the user about its status and to support the operation of the jump starter.

## SURGE PROTECTION

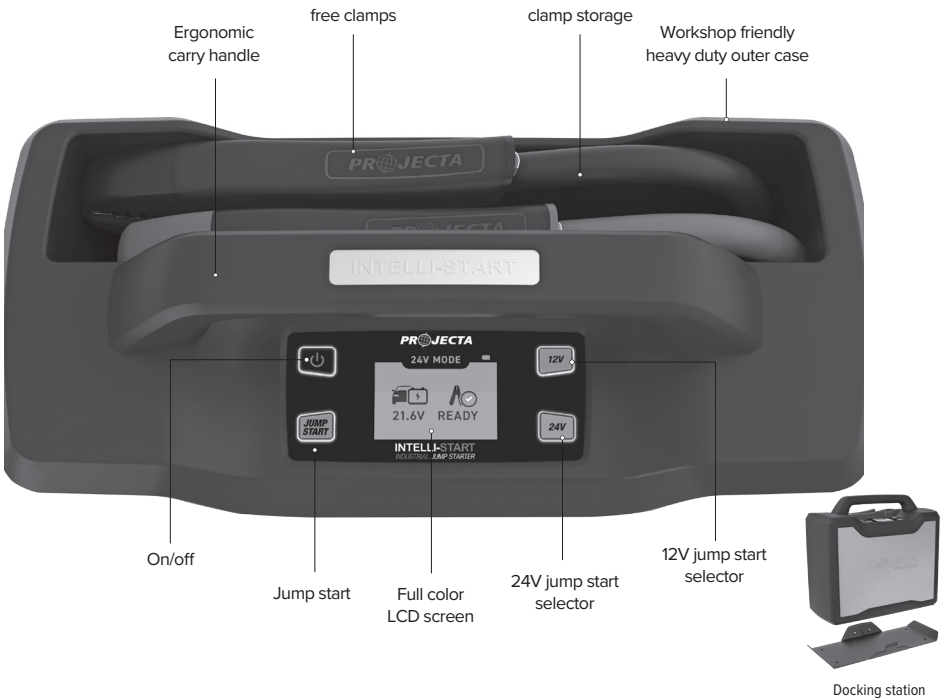
- The PJ-IS3000-2 and PJ-IS5000-2 feature built in surge protection so you can safely jump start vehicles with EFI (electronic fuel injection) and computer management systems.

## SPECIFICATIONS

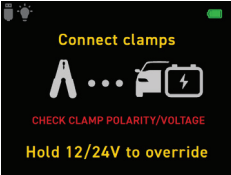
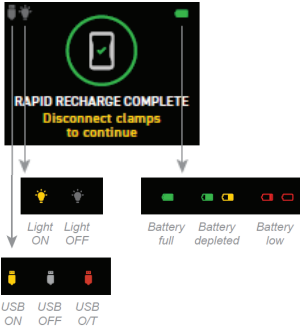
P/No.	PJ-IS3000-2	PJ-IS5000-2
Battery		
Battery Capacity	2 x 6.0Ah, at 12.8V DC, 48,000mAh at 3.2V DC (153.6Wh)	2 x 12.0Ah, at 12.8V DC, 96,000mAh at 3.2V DC (307.2Wh)
Battery Chemistry	Lithium Iron Phosphate (LiFePO <sub>4</sub> )	
Peak Amps	3000A	4500A
Clamp Power	12V DC Vehicle: 1000A, 24V DC Vehicle: 850A	12V DC Vehicle: 1500A, 24V DC Vehicle: 1000A
Battery Cycles	2000	
Jump starter Leads		
Length	59"	
Cable	1/0 AWG	
Polarity Protection	MCU controlled with mechanical solenoids	
Overload Protection	MCU controlled with mechanical solenoids	
Recharging		
Via	Charger docking station	
Source	AC charger 15V DC 1A	
Main Charge	Internally cell-balanced constant current/constant voltage	
Maintenance Charge	Resumes charging if battery voltage drops to 13.2V DC	
Jump start Connection Voltages		
Vehicle Voltage Range	2 – 14.6V DC (12V DC Vehicle), 14.7 – 30V DC (24V DC Vehicle)	
Dimensions, Weight & Environmental		
Height	12.8"	
Length	14.4"	
Width	6.7"	
Weight	23.37 lbs.	29.76 lbs.
Operating Temperature	-4°F (-20°C) to 140°F (60°C)	
Operating Temperature (charging)	32°F (0°C) to 113°F (45°C)	
Storage Temperature (long term)	14°F (-10°C) to 113°F (45°C)	
Ingress Protection	IP65 (Rain Proof) with covers over the ports	

# PRODUCT OVERVIEW

PJ-IS3000-2 and PJ-IS5000-2



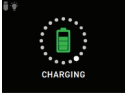
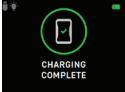





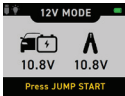


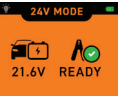
## LCD DISPLAY SCREEN LAYOUT


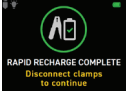



	<ul style="list-style-type: none"><li>PJ-IS3000-2/PJ-IS5000-2 jump starter battery status.</li><li>Message overview Icon.</li><li>PJ-IS3000-2/PJ-IS5000-2 jump starter suggested action.</li></ul>
	<p>The LCD display shows the PJ-IS3000-2/PJ-IS5000-2 jump starters status and supports its operation. In addition to the primary function the LCD display shows the following icons:</p> <ul style="list-style-type: none"><li>USB icon (ON/OFF)</li><li>Light icon (ON/OFF)</li><li>PJ-IS3000-2/PJ-IS5000-2 jump starter battery status icon FULL/DEPLETED/LOW</li></ul>

# JUMPSTARTER INSTRUCTIONS

- Notes:
- Instructions for negatively earthed vehicles only (most vehicles after 1970 are negatively earthed).
  - Before jump starting a vehicle, it is recommended to ensure the jump starter is fully charged.



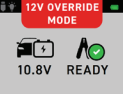



## JUMP STARTING

Step	Instruction	Display
1	The PJ-IS3000-2/PJ-IS5000-2 jump starter should be charged for around 8 hours prior to first use and as soon as possible after each use.	
2	If the PJ-IS3000-2/PJ-IS5000-2 jump starter has been fully charged, step 3 can be skipped.	
3	Before connecting the PJ-IS3000-2/PJ-IS5000-2 jump starter to a battery/vehicle, check the PJ-IS3000-2/PJ-IS5000-2 jump starter battery status by pressing the  button. If the PJ-IS3000-2/PJ-IS5000-2 starts up and shows the welcome screen momentarily following with “Connect clamps” screen, you can proceed to next step. <b>The small battery icon should be green or at least yellow.</b>	
4	Before connecting the PJ-IS3000-2/PJ-IS5000-2 clamps to the vehicle, turn the vehicle's ignition to OFF.	
5	Connect the red positive (+) clamp to the positive (+) terminal of the vehicle battery, then connect the black negative (-) clamp to the negative (-) terminal of the battery or a non-moving metal part of the engine block. Make sure to connect clamps firmly to battery posts to maximize jump start current and the battery posts are clean from grease and dust build-up. <b>DO NOT CONNECT TO FUEL LINE.</b> Always double check you have proper connections.	
6a	The PJ-IS3000-2/PJ-IS5000-2 automatically detects the vehicle battery voltage and selects the required voltage source. <b>Note:</b> <ul style="list-style-type: none"> <li>• Given the correct clamp voltage, the user can manually select the operating voltage by pushing and holding for 3 seconds  or  button. Upon manual selection of the voltage, the  button will flash and needs to be pressed again for confirmation, then the jump start can commence.</li> </ul>	  <p>OR</p>  
7	Turn the vehicle's ignition to ON and start the vehicle.	

8	<p>After the engine has started, leave the clamps connected for a minimum of 40 seconds to allow the PJ-IS3000-2/PJ-IS5000-2 RRT to charge the unit. Once the PJ-IS3000-2/PJ-IS5000-2 is fully charged, the RRT will shut off to avoid overcharging.</p> <p><b>Note:</b></p> <ul style="list-style-type: none"> <li>The PJ-IS3000-2/PJ-IS5000-2 will not switch OFF as long the clamps are connected to the vehicle battery.</li> <li>RRT (Rapid Recharge Technology) may take more than 40 seconds depending how depleted the jump starter battery is.</li> </ul>	 
9a	To disconnect the PJ-IS3000-2/PJ-IS5000-2 from the battery/vehicle, disconnect the black negative (-) clamp from the negative battery pole of the battery. Disconnect the red positive (+) clamp from the positive battery pole of the battery.	
9b	If clamps are left connected after vehicle has been jump started for an extended period, the PJ-IS3000-2/PJ-IS5000-2 will ask user to disconnect clamps.	
10	To turn off the PJ-IS3000-2/PJ-IS5000-2, press the power button.	

## **VERRIDE MODE**

Under normal conditions, the PJ-IS3000-2/PJ-IS5000-2 automatically selects the jump start voltage. However, the user is required to manually select output voltage if the vehicle battery voltage is between 0 to 1V DC.

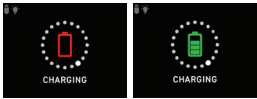
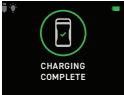

Vehicle Battery Voltage between 0 to 1V DC		
Step	Detail	Display
1	Press and hold the  button for a 12V DC vehicle system	 
2	Press and hold the  button for a 24V DC vehicle system	 

## **ARNING**

- Do not allow positive (+)/red and negative (-)/black clamps to touch each other whilst jump starter is in override mode.
- Pay careful attention when enabling manual override; reverse-connection and short-circuit protections are disabled.



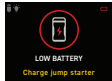







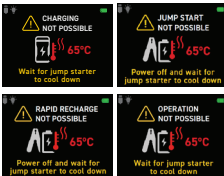

# CHARGING

Step	Detail	Display
1	Plug the output of the AC charging dock into a 110V AC socket. Once the AC dock is plugged into a 110V AC source, you can place the PJ-IS3000-2/PJ-IS5000-2 onto the charging dock.	
2	The battery charging screen will be shown when the PJ-IS3000-2/ PJ-IS5000-2 is being charged.	
3	When the PJ-IS3000-2/PJ-IS5000-2 is fully charged, it will display “CHARGING COMPLETE”.	
4	The PJ-IS3000-2/PJ-IS5000-2 will display the “CHARGER TIMEOUT” screen if the charging cycle cannot be completed in 24 hours. The typical charging time is 4 hours if the battery is at 50% state of charge.	

**Note:** It is recommended to fully charge the PJ-IS3000-2/PJ-IS5000-2 before the first use, as the PJ-IS3000-2/ PJ-IS5000-2 is shipped only partially charged.

# UNDERSTANDING YOUR JUMP STARTER

## ERROR AND ALARM MESSAGES

Error type	Error detail	Error display
<b>Low battery</b>	The internal battery voltage of the PJ-IS3000-2/ PJ-IS5000-2 is too low for a jump start. Please charge the PJ-IS3000-2/PJ-IS5000-2 immediately.	
<b>Reverse polarity</b>	The clamps are reverse connected to the vehicle battery. The clamps should be disconnected and reconnect in the correct polarity.	
<b>Overvoltage</b>	The vehicle battery voltage is too high for a 12V DC or 24V DC vehicle. Please disconnect the clamp and ask a qualified mechanic to check the vehicle's alternator.	
<b>Jump starter timeout</b>	The PJ-IS3000-2/PJ-IS5000-2 will display the "CHARGER TIMEOUT" screen if the charging cycle cannot be completed in 24 hours.	
<b>Short circuit</b>	The PJ-IS3000-2/PJ-IS5000-2 detected the clamps are short-circuited. The PJ-IS3000-2/PJ-IS5000-2 will not jump start until the short circuit is resolved. Please disconnect the clamps and check the vehicle electrical system.	
<b>Overload</b>	The PJ-IS3000-2/PJ-IS5000-2 detected excess current (more than the contactor and internal battery can handle) occurred. Jump starting will be disabled. Please disconnect the clamps and check the vehicle electrical system.	
<b>Failure</b>	The PJ-IS2000-2 detected a malfunction of internal contactors or abnormal internal battery voltage.	
<b>Low temperature</b>	The operating temperature is too low for the PJ-IS3000-2/PJ-IS5000-2 to perform its required functions.	
<b>High temperature</b>	The operating temperature is too high for the PJ-IS2000-2 to perform its required functions.	
<b>Surge protection failure</b>	The jump starter has detected surge protection system failed. User is advised to contact customer service.	

## FREQUENTLY ASKED QUESTIONS


**Q. Why does my PJ-IS3000-2/PJ-IS5000-2 take so long to charge on the dock?**

- A. Lower charging rate extends the battery life. The built-in charging circuit provides gentle 2-stage charge with cell-balancing for the internal Lithium Iron Phosphate (LiFePO4) battery.

**Q. Can the PJ-IS3000-2/PJ-IS5000-2 jump start vehicles at temperature lower than 32°F (0°C)?**

- A. If the PJ-IS3000-2/PJ-IS5000-2 operates at temperatures below 32°F (0°C), its jump start rated performance will be reduced but it will start vehicles with lower clamp output requirements.

**Q. Why didn't my PJ-IS3000-2/PJ-IS5000-2 start my vehicle?**

- A. There could be a number of reasons why the PJ-IS3000-2/PJ-IS5000-2 did not start your vehicle. Check the following:
- Ensure you have firm clamp connection to battery posts and the battery posts are clean from grease and dust build-up.
  - Ensure the PJ-IS3000-2/PJ-IS5000-2 is fully charged. Press the POWER (  ) button to check the battery state of charge.
  - Ensure you have followed the correct operating procedure. Refer to page 7 JUMP STARTING INSTRUCTIONS.
  - Ensure the vehicle operates at 12V DC or 24V DC.
  - If the ambient temperature is low 59°F (<15°C), the jump starter performance will be reduced. Repeat the jump start routine 1–3 times as the battery performance will improve with each concurrent jump start.
  - Ensure the vehicle being jump started does not require a clamp output of greater than 750A for 12V DC batteries and 500A for 24V DC batteries in order to jump start the vehicle.

**Q. What is Peak Amps?**

- A. Peak amps is the maximum current the battery in the PJ-IS3000-2/PJ-IS5000-2 can produce.

**Q. What is Clamp Power?**

- A. Clamp power is the maximum current available at the clamps.

1. Under normal conditions with a fully functioning alternator.

# WARRANTY STATEMENT

Brown & Watson Incorporated USA (BWI USA) warrants their products to be free from failure in material and workmanship from the date of original purchase for the noted period under normal use. The warranty is voided due to misuse, abuse, alteration or damage caused by customer and product must be intact with no modifications. The warranty covers the product only and not any related damages.

The product is not to be returned to the place of purchase. Warranty claims must be made directly with BWI USA. Warranty claims can be made electronically via [support@bwi.inc](mailto:support@bwi.inc) or by contacting BWI USA at **888-489-9820**. All warranty claims must be made by the original purchaser and include proof of purchase. Pictures of the product may be required as well.

Products may be repaired or replaced at discretion of BWI USA. Product returned to BWI USA must be sent prepaid using include the RMA number supplied by BWI USA or shipment will be returned. Replacement or repaired products will be shipped out prepaid by BWI USA.

## **Brown & Watson International**

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**PROJECTA.US**