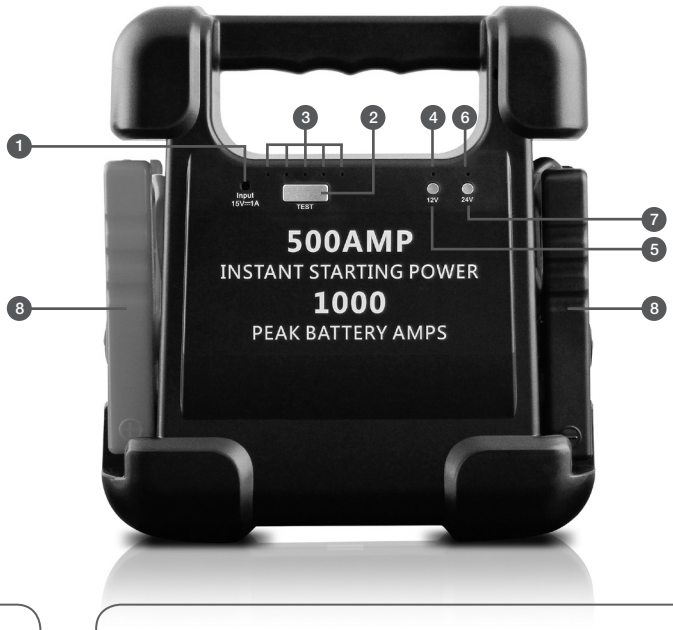
Richard|Solo®

12V/24V Smart Jump Starter

INSTRUCTION MANUAL

Thank you for purchasing the RichardSolo 12V/24V Smart Jump Starter. Please read these instructions before operation and save for future reference.

1. Charge input port (15V 1A)
2. Test button
3. 5 LED charge capacity indicators (10%, 20%, 40%, 60%, 80%, 100%)
4. LED – 12V indicator
5. 12V button
6. LED – 24V indicator
7. 24V button
8. Battery clamps
9. Dual voltage (100-240V) AC wall adapter with round pin cable (not shown)
10. Car adapter with round pin cable (not shown)



Charge 12V/24V Smart Jump Starter:

A. Connect Dual voltage AC wall adapter (9) to AC wall outlet, or connect car adapter (10) to cigarette lighter port in vehicle.

B. Connect round-pin cable to Smart Jump Starter input port (1).

C. Five LEDs (3) flash in 20% increments and remain solid when corresponding capacity is reached.

D. When fully charged, 5 solid LEDs briefly illuminate and then shut off - Remove charge cable.

Note: *For optimum performance, make sure all LEDs have stopped flashing and remain solid to ensure full charge capacity. Total recharge time (0% - 100%) = about 8 hours.*

Jump start instructions:

A. Connect BLACK clamp (8) to negative (-) battery terminal.

B. Connect RED clamp (8) to positive (+) battery terminal.

C. Smart Jump Starter auto detects 12V or 24V – 12V(4) or 24V(6) LED illuminates.

D. Start motor.

E. When motor starts, remove clamps immediately from battery terminals.

Note: *For best performance, use Smart Jump Starter at 60% charge capacity (3 LEDs) or higher. If 12V or 24V LED does not automatically illuminate, check battery voltage and set 12V/24V manually via push buttons.*

Push buttons:

A. **TEST** (2)
Press/release – LEDs show remaining charge capacity 5 LEDs flashing = 10%; 1 LED solid = about 20%; 2 LEDs = about 40%; 3 LEDs = about 60%; 4 LEDs = about 80%; 5 LEDs = 100% capacity Press/hold 3 seconds - resets battery (see troubleshooting)

B. **12V** (5)
Press/hold 3 seconds – 12V LED illuminates
Ready to jump start 12V battery system

C. **24V** (7)
Press/hold 3 seconds – 24V LED illuminates
Ready to jump start 24V battery system

Note: *Smart Jump Starter auto-detects most 12V/24V battery systems. Press 12V/24V buttons when setting manually. 12V/24V LEDs shut off in 30 seconds if no connection detected.*

12V (4) / 24V (6) LED indicators:

A. **12V or 24V LED illuminates**
Connected battery is 12V or 24V — OK to jump start

B. **12V or 24V LED flashes**
Connected battery is 12V or 24V — press corresponding 12V(5) or 24V(7) button 3 seconds. When 12V or 24V LED remains solid, start motor within 30 seconds

C. **12V and 24V LEDs flash alternately**
Correct voltage is not auto-detected
Check battery for correct voltage — press corresponding 12V(5) or 24V(7) button 3 seconds. When 12V or 24V LED remains solid — start motor within 30 seconds

D. **12V and 24V LEDs flash at the same time**
Connection error — connect battery correctly and try again

E. **12V or 24V LEDs do not illuminate**
Battery may be completely dead
Check battery for correct voltage — press corresponding 12V(5) or 24V(7) button 3 seconds based on correct voltage — start motor within 30 seconds

12V/24V Smart Jump Starter

INSTRUCTION MANUAL

Continue

Specifications:

Capacity: 24000 mAh (88.8 Wh)

Input: DC 15V 1A

Output: 12V jump start / 24V jump start

Start current: 500A-12V / 250A-24V

Peak current: 1000A-12V / 500A-24V

Size: 9.26" x 8.86" x 3.15" (23.5 x 22.5 x 8.0 cm)

Weight: 3.64 lb (1.65 kg)

Operating temperature: -4~140 degrees F (-20~60C)

Car adapter charge cable length: 36" (91.44 cm)

Dual voltage AC wall adapter charge cable length: 52 (132.1 cm)

Charging time: 8 hours

Package Contents:

- 12V/24V Smart Jump Starter
- Dual voltage (100-240V) AC wall adapter with round pin cable
- Car adapter with round pin cable
- Instructions

Toxic and harmful substances

Pb:0 Hg:0 Cd:0 Cr(Vi):0 PBB:0 PBDE:0

Note: *0 indicates all homogeneous materials' hazardous substances content are below the MVC limit specified in the Standard 2002/95/EC(RoHs)wait till depleted.*

FAQ

Q: How does Smart Jump Starter identify12V or 24V batteries?

A: Under normal conditions, Smart Jump Starter automatically identifies the battery voltage. If the battery is too low on power to identify, check battery for voltage rating - press/hold 12V or 24V push button 3 seconds – start motor.

Q: What if Smart Jump Starter cannot identify the voltage automatically?

A: Most cars & light trucks use 12V. Larger trucks, diesel vehicles, and boats may use 24V. Look for voltage rating on the vehicle's battery, check owner's manual, or ask a professional.

Q: How many times will Smart Jump Starter start a vehicle before it needs charging?

A: 12V battery = approximately 30 times. 24V battery = approximately 20 times. Total number may vary depending upon battery and starting conditions.

Q: How long does it take to fully recharge Smart Jump Starter?

A: About 8 hours through its 15V 1A charge input port (1).

Q: What is the lifetime for Smart Jump Starter?

A: Up to 5 years.

Q: How often should Smart Jump Starter be recharged?

A: A fully charged unit will last about 6-12 months. Recharge every 3 months in storage. For best performance, use Smart Jump Starter with 60% charge capacity (3 solid LEDs) or higher.

Note: *It's a good idea to top up the charge as often as you want — keeping it fully charged is fine. No need to wait till depleted.*

Troubleshooting

Problem: No response when TEST button is pressed

Cause: Smart Jump Starter is low on power / low voltage protection mode activated

Solution: Plug AC (9) or Car(10) adapter into 15V 1A port(1) and recharge Smart Jump Starter

Problem: 12V(4) and 24V(6) LED indicators are flashing at the same time

Cause: Short circuit detected / Smart Power Bank locked in self protection mode

Solution: Disconnect clamps(8) from short circuit / press TEST(2) button 3 seconds to reset

Problem: 12V(4) and 24V(6) LED indicators twinkle frequently when connected to battery

Cause: Red(+) and black (-) cables are connected to wrong battery terminal

Solution: Disconnect both clamps(8) from battery / reconnect to correct +/- battery terminal

Notes

- For best performance, use Smart Jump Starter with 60% remaining charge capacity (3 LEDs) or higher
- For manual voltage setting, make sure 12V or 24V is switched on before connecting clamps to battery terminals
- DO NOT connect clamps to 12V battery when 24V LED is illuminated on Smart Jump Starter
- DO NOT connect clamps to 24V battery when 12V LED is illuminated on Smart Jump Starter
- When 12V or 24V LED illuminates DO NOT connect clamps to wrong +/- battery terminals — RED = (+) positive / BLACK = (-) negative
- DO NOT connect RED/BLACK clamps(8) together
- Make sure Smart Jump Starter clamps(8) are connected securely to battery terminals
- Always remove clamps(8) within 30 seconds after motor starts
- Check battery terminals for rust, dirt and corrosion before using Smart Jump Starter — clean if necessary to avoid poor performance
- DO NOT jump start again after 3 attempts to avoid damaging Smart Jump Starter / Check for other vehicle issues
- NEVER disassemble Smart Jump Starter — NO serviceable parts inside
- Charge only with Smart Jump Starter AC(9) or car adapter(10)

Safety Instructions:

Read all instructions and notes prior to using this product. Failure to read and follow safety instructions could result in fire, explosion, electrical shock or other hazard causing serious and/or fatal injury and/or property damage

1. Do not modify, disassemble, open, drop, crush, puncture, or shred this product
2. Do not expose this product to rain or water
3. Avoid excessive heat (open flame, sunlight, etc.)
4. Do not store in locations where temperature may exceed 158 degrees F (70C)
5. Recharge Smart Jump Starter in ambient temperatures between 32-104 degrees F (0-40C)
6. Do not use near flammable liquids, gasses, or dust
7. This product is not a toy — keep away from children