

1. Overview

The UTRAI JS-20 is a multi-function portable power device designed for automotive and outdoor use. It combines a high-current jump starter, a digital air compressor, a power bank, and an LED flashlight into a single compact unit.



Primary functions include:

- Jump-starting 12V vehicles (cars, trucks, motorcycles, boats, etc.).
- Inflating tires and other inflatables.
- Charging USB devices like phones and tablets.
- Providing emergency lighting.

2. Package Contents

Ensure the following items are present in the package:

- JS-20 Jump Starter with Air Compressor (main unit)
- Smart Jumper Cables
- USB-C Charging Cable
- Air Pump Hose
- 4 Air Nozzles/Valve Connectors
- 1 Pair of Insulating Gloves

- User Manual (this document)
- Protective Carrying Case



3. Product Features & Specifications

3.1 Physical Specifications

Model	UTRAI JS-20
Dimensions	21 x 10.8 x 4.9 cm (8.27" x 4.25" x 1.93")
Weight	Approx. 0.77 kg (1.7 lbs)
Battery Type	Lithium Polymer
Power Bank Capacity	10000mAh

3.2 Jump Starter Specifications

Peak Current	5000A
Voltage	12V DC
Compatible Vehicles	All 12V gasoline engines. Diesel engines up to 10L displacement.
Jump Starts per Charge	30-50 times
Operating Temperature	-20°C to 60°C (-4°F to 140°F)

3.3 Air Compressor Specifications

Maximum Pressure	150 PSI
Pump Type	19-cylinder high-efficiency
Inflation Time (Example)	Approx. 1 minute to inflate a car tire from 30 PSI to 35 PSI.
Auto-Stop Function	Yes. Stops at preset pressure.

3.4 Power Bank & Ports

Input Charging (USB-C)	18W QC3.0 Fast Charging
Output Port 1 (USB)	5V/2.4A
Output Port 2 (USB QC3.0)	5V/3A, 9V/2A, 12V/1.5A

3.5 LED Flashlight

- **Brightness:** 600 Lumens
- **Modes:** Constant Light, Strobe, SOS

3.6 Display & Safety

- **Display:** 2-inch LED digital screen.
- **Displays:** Battery level, real-time tire pressure, inflation mode, charging status.
- **Safety Protections (10 Types):** Short-circuit, overheat, spark resistant, reverse-polarity, over-temperature, overcharge, over-discharge, over-voltage, over-current, over-power protection.



4. Use Guide

4.1 Initial Charging

1. Before first use, fully charge the device using the provided USB-C cable and a compatible 18W QC3.0 wall adapter (not included).
2. Connect the USB-C cable to the device's input port. The display will show the charging status and battery level.
3. Charging is complete when the battery indicator shows 100%.

Note: It is recommended to fully charge the unit before storage and recharge it every 3-6 months if not in use to maintain battery health.

4.2 Jump-Starting a Vehicle

WARNING: Always wear the provided insulated gloves. Ensure the jump starter is powered OFF before connecting cables. Connect and disconnect in the exact order specified to avoid sparks and damage.

1. **Prepare the Jump Starter:** Ensure the JS-20 is charged. The jumper cables should be disconnected from the unit.
2. **Connect to Jump Starter:** Plug the smart jumper cable connector firmly into the dedicated port on the side of the JS-20 unit.
3. **Connect to Car Battery:**
 - Identify the positive (+) and negative (-) terminals on the dead vehicle battery.
 - Connect the RED clamp to the positive (+) terminal of the dead battery.
 - Connect the BLACK clamp to a solid, unpainted metal part of the engine block or chassis (a ground point), away from the battery and fuel lines. **Do not connect to the negative terminal of the dead battery.**



4. Start the Vehicle:

- Turn ON the JS-20 unit using its power button.
- Ensure the display is active.
- Start the vehicle's engine as you normally would. It should start within a few seconds.

5. Disconnect Cables: Once the vehicle is running:

1. Turn OFF the JS-20 unit.
2. Remove the BLACK clamp from the vehicle's ground point.
3. Remove the RED clamp from the vehicle's battery positive terminal.
4. Unplug the cable connector from the JS-20 unit.

Note: If the vehicle does not start after 2-3 attempts of 3-5 seconds each, stop. The battery may be deeply discharged or there may be another issue with the vehicle.

4.3 Using the Air Compressor

1. **Power On:** Turn on the JS-20 unit.
2. **Select Mode:** Use the mode button to cycle through the 5 inflation presets (e.g., Car, Motorcycle, Bicycle, Ball, Custom) or set a custom PSI value.
3. **Connect Hose:** Screw the air pump hose onto the unit's air outlet. Attach the appropriate nozzle to the other end of the hose.
4. **Connect to Inflatable:** Attach the nozzle firmly to the valve of the tire or item you wish to inflate.
5. **Start Inflation:** Press and hold the start/stop button. The compressor will begin. The display will show the real-time pressure.
6. **Auto Stop:** The compressor will automatically stop when it reaches the preset target pressure. Release the button.
7. **Disconnect:** Quickly remove the nozzle from the valve to prevent air loss. Unscrew the hose from the unit.



4.4 Using as a Power Bank

1. Use a standard USB cable (not provided for devices) to connect your phone, tablet, or other USB device to either the 5V/2.4A USB port or the QC3.0 fast-charging port on the JS-20.
2. The device will begin charging automatically. The JS-20's display will show the remaining battery capacity.

4.5 Using the LED Flashlight

Press the light button to cycle through the modes: **Constant Light** → **Strobe** → **SOS** → **Off**. The light is located on the front of the unit.

5. Safety Instructions & Warnings

READ AND FOLLOW ALL INSTRUCTIONS. Failure to do so may result in fire, explosion, property damage, personal injury, or death.

- **Jump Starter Safety:**

- Never attempt to jump-start a frozen battery.
- Do not use the device to jump-start a 24V system or an electric vehicle (EV) traction battery.
- Do not touch the metal clamps together while the unit is on or connected to a battery.
- Keep the unit and cables away from water, oil, heat sources, and moving engine parts.

- **Battery & Charging Safety:**

- Use only the provided USB-C cable or a certified high-quality cable for charging.
- Do not disassemble, puncture, crush, or incinerate the unit.
- Do not expose the unit to extreme heat (above 60°C/140°F) or fire.
- If the unit is damaged, swollen, leaking, or emits a strange odor, discontinue use immediately and place it in a safe, open area.

- **Air Compressor Safety:**

- Do not operate the compressor continuously for more than 10 minutes. Allow it to cool down between uses.
- Do not use to inflate persons (e.g., inflatable suits) or any item not rated for the pressures generated.
- Check the maximum PSI rating of the item you are inflating. Do not exceed it.

- **General:**

- Keep out of reach of children.
- This product contains a lithium polymer battery. Follow local regulations for disposal or recycling.

6. Troubleshooting

Problem	Possible Cause	Solution
Vehicle does not jump-start.	<ol style="list-style-type: none">1. JS-20 battery low.2. Incorrect cable connection.3. Vehicle battery is deeply damaged or vehicle has other issues.4. Clamps not making good contact.	<ol style="list-style-type: none">1. Recharge the JS-20.2. Verify connection order: Red to battery (+), Black to chassis ground.3. Seek professional mechanical help.4. Clean battery terminals and ensure clamps are secure.
Air compressor does not start.	<ol style="list-style-type: none">1. Unit is in wrong mode.2. Unit overheated.3. Hose not connected properly.	<ol style="list-style-type: none">1. Select an inflation mode (Car, Custom, etc.).2. Allow unit to cool down for 15-20 minutes.3. Ensure hose is screwed on tightly.
Display is blank or unit does not turn on.	<ol style="list-style-type: none">1. Battery completely discharged.2. Internal fault.	<ol style="list-style-type: none">1. Connect to a charger for at least 30 minutes.2. If charging does not activate the display, contact support.
Device gets very hot during use.	<ol style="list-style-type: none">1. Extended continuous use.2. High ambient temperature.3. Possible internal issue.	<ol style="list-style-type: none">1. Stop using and allow to cool in a well-ventilated area.2. Do not use in direct hot sunlight.3. If overheating occurs during normal brief use, discontinue use and contact support.
USB device does not charge.	<ol style="list-style-type: none">1. JS-20 battery is low.2. Faulty USB cable.	

Warning

This content is compiled from multiple sources and is provided for reference purposes only. It may not be complete or fully applicable to all situations. If you are unable to resolve your issue, please contact the product manufacturer or an authorized service provider for official support.