

Cordless Smart Tire Inflator Air Compressor

USER MANUAL-AD380



Notes: PLEASE READ ENTIRE MANUAL BEFORE FIRST USE

Please send us an email if you need assistance with your item.

Support E-Mail: NASupport@autder.net for Northern America market

Whatsapp: +1(858) 328-1126

GBSupport@autder.net for UK market

We sincerely appreciate your purchasing of the AUTDER™ Rechargeable Tire Inflator Portable Air Compressor - Cordless Handheld Air Pump. This versatile device has been designed to efficiently and swiftly inflate your vehicle's tires, contributing to enhanced safety during your journeys.

This advanced device offers a range of convenient features, including tire pressure presetting via a Pressure adjusting dial, effortless quick adjustment of preset tire pressure using a thumbwheel, automatic shut-off for added safety, real-time progress display, a multi-unit display for your convenience, integrated LED lighting with an SOS function, and more. Furthermore, the included wireless battery pack can also serve as a power source for electronic devices, such as your mobile phone, in emergency situations.

This product boasts a wide range of applications, making it suitable for use with various vehicles including cars, SUVs, motorcycles, bicycles, electric vehicles, and electric bicycles. Additionally, it can be employed to inflate items such as sports balls and small inflatable toys, ensuring its versatility for a multitude of needs.

Notes: Its intended use is primarily for smaller and mid-sized vehicles and inflatables. Not applicable for large trucks, tractor, trailer or other large-capacity objects.

Portable Air Pump also functions as a tire pressure gauge, allowing you to monitor your tire pressure in real-time.

Precautions carefully and follow all the instructions before using the air compressor.

we recommend that you store the manual securely for future reference.

Warning! It is imperative that you carefully read and adhere to all safety warnings and instructions. Failure to do so may lead to the risk of electric shock, fire, and/or serious injury.

一. Definitions: Safety Alarm Symbols and Words

This instruction manual employs the following safety alert symbols and terminology to notify you of potentially hazardous situations and the associated risks.



Danger: When used in safety warnings or symbols, it signals a situation that can cause serious harm or even death if proper precautions are not taken.



Warning: A warning typically indicates a higher level of caution. It is used to highlight situations or conditions that could lead to harm or injury if not approached with care.



Caution: Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.



Notes: This symbol and associated terminology indicate a practice or situation that is not directly related to personal injury but, if not avoided, may lead to property damage.

二. Selection of Strong/Weak Airflow Mode

In the realm of inflation, it is important to consider that the required airflow varies depending on the item being inflated. For instance, car and bicycle tires, being larger in size, benefit from a robust airflow that enhances inflation efficiency, thereby saving valuable time. However, when it comes to inflating basketballs and similar items, safety and stability during the inflation process take precedence. Excessive airflow can potentially damage the inner layer of the basketball, negatively impacting its service life. To cater to these varying needs, we have thoughtfully customized two distinct airflow modes for the AD380.

Car and Bicycle Mode (Strong Airflow Mode): Selecting this mode activates the tire inflator's high airflow setting, which is ideal for efficiently inflating standard car tires, such as those sized 195/55/R15, in just 180 seconds, and bicycle tires in as little as 30 seconds.

Ball Mode (Weak Airflow Mode): When you need to inflate a ball, simply switch the air pump to the ball mode. In this mode, the tire inflator operates with low airflow, ensuring a stable and safe inflation experience.

Note: It is crucial to avoid inflating a basketball or similar items in the car or bicycle mode. Excessive airflow in this scenario will trigger the automatic protection mechanism of the air pump, causing an immediate engine shut-off to prevent damage to the motor.

Caution: The monitor is not a touch screen. Avoid exerting excessive pressure on the screen with your hand, as it may result in screen dimming.

COMPONENTS



Fig. A

- 1 Honeycomb annular heat dissipation hole
- 2 Silicone sealing plug
- 3 Copper air nozzle connection port
- 4 High-temperature anti-scald mark
- 5 LED illuminating lamp + SOS
- 6 ON/OFF Trigger
- 7 Silicone anti-sliding handle
- 8 Battery pack release button
- 9 Wireless battery
- 10 Pressure adjusting dial
- 11 Heat emission hole
- 12 12V Power input interface via the cigarette lighter(Emergency inflation)
- 13 Digital LCD display
- 14 Functional operation button
- 15 Battery charging port (DC5521 Female Socket)
- 16 Battery Power indicator
- 17 Battery power button
- 18 USB output interface

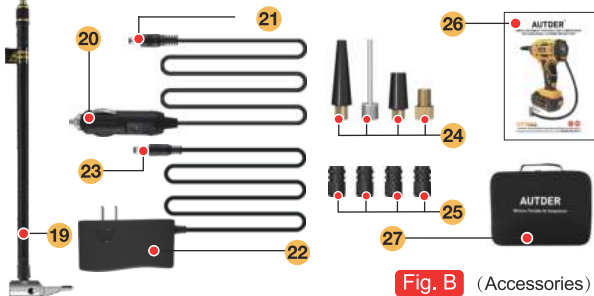


Fig. B (Accessories)

- 19 High-pressure air hose (60cm/23.6 inch)
- 20 Cigarette lighter adapter (12V)
- 21 Cigarette Lighter Power Cable (DC5521 male socket)
- 22 Charging adapter (110V-250V)
- 23 Charging cable(DC5521 male connector)
- 24 Accessories (Ball needle *1, Metal adapter *1, air nozzle *2)
- 25 Tire cap *4
- 26 Instructions
- 27 Fabric carry bag

III. GENERAL SAFETY MEASURES AND PRECAUTIONS THAT APPLY TO THE USE OF THE AUTDER™ RECHARGEABLE COMPRESSOR.

1. The air compressor should not operate for more than 15 minutes at a time, after which it must be switched off and set aside to cool for at least 15 minutes before restarting. Allow the unit to cool for 15 minutes after each 15 minutes of use.
2. Over-temperature protection: when the cylinder temperature exceeds 248 °F, the temperature symbol will flash, and the air pump will shut down automatically.
3. Unplug the AC battery charger from the battery when the charger is not in use. Do allow unit to cool down then do replace or discharge the attachments.
4. For your own safety, only use accessories and parts specified in these instructions or recommended for use by the manufacturer.
5. Never use the air compressor near flammable fluids or gases.
6. Never allow children to connect/disconnect the air compressor and never allow them to play with accessories.
7. The air compressor is designed for occasional use. Inflation over a long period will overheat the air compressor and may cause damage.
8. WHEN NOT IN USE, DO NOT STORE WITH THE BATTERY PACK ON THE UNIT.
9. The AC adaptor is exclusively intended for battery charging and cannot be inserted into the handle port of the air pump.
10. Insert the Cigarette Lighter Power Cable into the 12V DC Cigarette Lighter Power port located on the handle for emergency purposes and is not suitable for battery charging.
11. Do not modify or attempt to repair the inflator. Under no circumstances should you drill into, weld, or make alterations to the inflator or its attachments.
12. Excessive air pressure poses a hazardous risk of bursting. Always consult the manufacturer's maximum pressure rating for the objects you are inflating.
13. Please do not leave the inflator running unattended, as it may lead to overinflating tires or other items, potentially causing damage.
14. Before inflating, make sure to use a tire gauge to check the tire pressure. Refer to the tire sidewall and the vehicle manual for the appropriate and accurate tire pressure specifications.
15. The air pump may become hot during operation. Please ensure the pump has sufficient time to cool down for approximately 30 minutes before storing it away.
16. When the tool is not in use, position it on its side on a stable surface, ensuring it does not create a tripping or falling hazard. Do not operate power tools in wet or potentially explosive environments, such as areas with flammable liquids, gases, or dust. Please be aware that this air pump is a professional power tool; therefore, it should be stored out of children's reach. Supervision is required when individuals unfamiliar with the power tool operate it.



WARNING: It is imperative that you thoroughly read and adhere to all safety warnings and instructions provided. Neglecting to follow these warnings and instructions may lead to the risk of electric shock, fire, and potentially severe injuries.



INFLATION INSTRUCTIONS

I. Specifications:

Product size: 6.42x3.07x10.6 inches / 163x78x268 mm

Product weight: 3pounds/1.36kg

Product material: Nylon + 10% fiber, TPU, ABS (fireproof), silicone

LED illuminating lamp: 100LM (can be switched in three gears: normally on, sharp flash, SOS)

Input Voltage: 21V ---1A

Input voltage of cigaretet lighter: 12V --- 10A

Rated voltage: 21V

Rated power: 180W

Maximum air volume: 50L/MIN

Pressure Unit Conversion: 1PSI≈0.069Bar≈6.9kPa≈0.07Kg/CM²

Pressure display range: 3-180PSI/0.2-12.4 Bar/20.6-124kPa/ 0.2-12.6Kg/CM²

Maximum inflation pressure: 180PSI (flashing when exceeding 180PSI)

Pressure gauge precision: ±1%PSI (with normal temperature of 25 °C and humidity of 75%)

Pressure units: PSI, BAR, KPA, KG/CM²

Mode switch: short press '+' button to switch, and the screen will successively display the small motorcycle→ bicycle→ basketball. When switching the mode, the default settings shall be displayed correspondingly (preset values: 36PSI for cars and motorcycles -60PSI for bicycles - 8PSI for basketballs)



Fig. 0

II. INFLATION INSTRUCTIONS

1. Attaching the Accessories (Figure H)

Warning! In order to mitigate the potential for severe personal injuries, it is imperative to power down the unit, remove the battery pack, and disconnect it from the power source before engaging in any adjustments, or the removal or installation of attachments or accessories. Neglecting this precaution could result in unintended activation and subsequent injury.

Connect the end of the high-pressure hose 19-b to the air pump 3, and then Rotate the high-pressure hose in a counterclockwise direction to secure it in place. To disassemble the high-pressure hose, rotate it clockwise.

A standard Air Hose Quick Connector 19-a, 2 plastic nozzle adapters 24 - Use for inflatables & more. Sport needle - Use for balls.

How to connect nozzle accessories: Flip the lever of the Air Hose Quick Connector into the up/open position. Slide the selected nozzle accessory into the Flexible Air Hose Quick Connector. Next, lower the lever into the down/closed position. This will create a seal and will hold the tip in place. Store nozzle accessories in the nozzle accessory storage compartment 29.

Notes: Before Operating the air pump, please ensure each required accessory to be firmly locked in place.



2. Two Types of Power Supply

2.1. VIA RECHARGEABLE BATTERY PACK (Fig.C)

Notes: For optimal performance, ensure that your battery pack is fully charged: press the power button on the battery pack to check if the power indicator displays a full charge.

- Align the grooves on both the battery pack and the main unit. Slowly slide it in until it clicks.
- If it becomes necessary to remove the wireless battery base from the air pump, please depress the release button, and then firmly pull the battery pack out from the handle.

To check the voltage, press the '+' and '-' buttons simultaneously, release them, and the current voltage will be displayed on the screen, with the pump returning to the inflation mode after 3 seconds.(Fig.0).

⚠ Note: The battery won't charge during working.

- c) Insert the Cigarette Lighter Power Cable into the 12V DC Cigarette Lighter Power port located on the battery pack. Then connect the 12V DC Adapter into the DC socket in your car. (Fig.E/G)

2.2 VIA THE 12V DC CAR ADAPTER (Fig.E)

Before initiating the air pump, please ensure that the appropriate power source is selected. You can power it with a 21V Max battery pack or a 12V DC vehicle connector (Fig. E/G). After making the power connection, press the power button (⑥, Fig. C) on the air pump to start its operation. Pressing the power button again will cease the air pump's operation.

When the power source is connected, the LCD display screen on the air pump will activate. However, when the equipment is not in operation, the air pump's display screen will turn off or enter sleep mode. To activate the system when you wish to use the air pump, press the 'M' button (Fig. D). This action will cause the LCD screen to illuminate, signifying that the air pump is ready for operation.

※ **The socket for the vehicle accessories must have a rated current of at least 10 amps. If unsure, check your vehicle's owner manual for your DC socket power rating.**

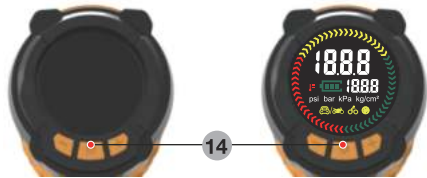


Fig. D

Short press 'M' button to activate the screen

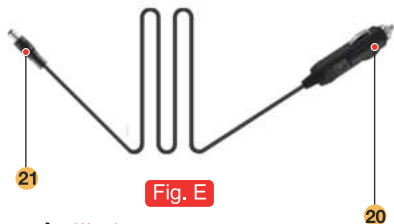


Fig. E

⚠ Warning:
This DC cable is for emergency use only,
not for battery charging.

3. Tires Inflation

⚠ BEFORE USE: If you are using the battery pack, make sure your battery is fully charged.
If you are connecting your unit via 12V DC Car adapter, make sure everything is connected correctly.

1. Install the battery pack and power it on.
2. Short press 'M' button to activate the screen.
3. Short press 'M' button to switch to the selected pressure unit.
4. To set the preset tire pressure value, follow these steps: Briefly press the '+' button to choose the inflatable object (default air pressure preset value: 36 PSI for cars and motorcycles, 60 PSI for bicycles, and 8 PSI for basketballs). Once the selection is made, you can further adjust the specific air pressure value. (Press and hold the '+/-' button for 3 seconds to switch to the mode for adjusting the preset pressure. Then, continue to press and hold the button for rapid increase or decrease. You can also use a short press of the '+/-' buttons to make gradual adjustments to the preset pressure value.).

⚠ Note: Pressure Adjusting Dial ⑩ - To rapidly adjust the preset tire pressure value (which can be adjusted at will in any mode) (Fig.G)

5. Voltage display: Simultaneously press '+' and '-', after releasing them, the screen will display the current voltage, and after 3s, the pump will return to the inflation mode.
6. Press the power switch button ⑥ of the air pump to initiate its normal operation. If the power switch button is pressed again, the air pump will cease its operation.

⚠ Warning: RISK OF BURSTING. Excessive air pressure may lead to the risk of tire blowouts or personal injuries. It is essential to check the manufacturer's specified maximum pressure rating (180 PSI) and always follow the recommended tire pressure in the vehicle's owner manual or door jamb. For bicycle tires, check markings on tire.

⚠ Note: The air pump will automatically cease operation when the air pressure of the target object reaches the preset value.

⚠ Note: Be aware that the actual pressure reading may experience a slight decrease after a few seconds. This occurrence is considered a normal phenomenon and is not indicative of any fault with the air pump.

⚠ Note: The air pump features a memory function for the preset tire pressure value. After the air pump is powered off, the previously set tire pressure value is retained. When the air pump is powered on for subsequent use, the screen will display the last used value.

⚠ Warm tips: After the air compressor is not in use, place the side of the tool on a stable surface to minimize the risk of tripping or falling. Whenever possible, store the tool in the provided fabric carry bag.

4. LED Working Lamp Operation:

Power on the air compressor, without engaging any operation of the air pump, briefly press the '-' button, the working lamp will switch to normal continuous lighting mode; Another short press will transition the working lamp to 'SOS' mode; A subsequent brief press will set the working lamp to a rapid flashing mode. To turn off the LED working lamp, press the '-' button once more.

⚠ Note: Before the air pump is powered on, the working lamp will not turn on.

5. Explanation of the Display and Functions of the Screen Buttons (Fig.F)

- I Battery power indicator
- II Temperature alarm
- III Switching Units by short pressing 'M' button
- IV Inflatable object selection
- V Short press '-' to control LED working lamp: normally on - SOS - sharp flash - off
- VI Real-time tire pressure progress display
- VII Real-time tire pressure value display
- VIII Preset tire pressure value display
- IX Long press '+'/'-' button to enter tire pressure preset mode, after the value flashes, short press '+'/'-' to increase or decrease, long press for 2s to switch to rapid increase or decrease, if no operation within 3s, the button will be locked, press '+' and '-' simultaneously, the current voltage will be displayed, loose the buttons, the screen will return to the air pressure mode



Fig. F

- X Short press '+' button to switch the inflation object
- XI 'M' button: short press it to activate/power on the screen, short press again to switch the pressure unit, and long press for 3s to power off.



Fig. G

6. Charge Battery (Fig.K)

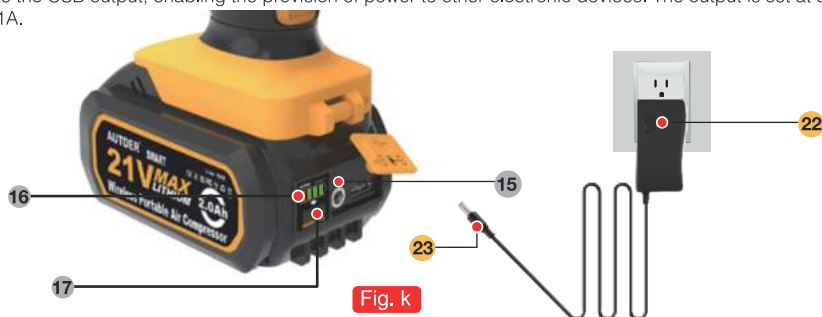
1. The AC adaptor is exclusively intended for battery charging and cannot be inserted into the handle port of the air pump.
2. Utilize the included AC adaptor to charge the removable battery provided in the package.
3. Open the sealed silicone gasket of the battery pack, insert the power cord²¹ into the charging port¹⁵ of the 21V battery pack, with the 4 power indicator lights¹⁶ initially flashing cyclically; when charging reaches 25%, the 1st light remains steady while the 2nd, 3rd, and 4th lights continue to flash cyclically; at 50% charge, the 1st and 2nd lights are steadily on, with the 3rd and 4th lights flashing cyclically; at 75%, the 1st, 2nd, and 3rd lights remain steady, while the 4th light continues to flash, and at 100% charge, all four lights remain constantly on, indicating the completion of the charging process.

⚠ Note: AUTDER battery packs are equipped with safeguards against over-discharge and overcharge, but for added safety, please disconnect the power adapter once the charging process is finished.

⚠ Note: One-key activation of the battery pack 17.

a. Check the real-time battery level

b. Activate the USB output, enabling the provision of power to other electronic devices. The output is set at 5V and 2.1A.



4. Battery capacity level indicator

	Remaining Capacity	Current Voltage ±0.1V	Current State of Indicator Lamps	Remark
Battery Capacity Display Level	<25%	<16.5V	One lamp flashes	Please Charge
	25%	16.5-17.5V		Please Charge
	50%	17.6-18.5V		Please Charge
	75%	18.6-19V		Can be charged
	100%	>19V		Full charged

5. When the charger detects a battery pack that is either too hot or too cold, it initiates a Hot/Cold Pack Delay, temporarily halting the charging process until the battery pack attains the suitable temperature, and subsequently, the charger automatically transitions to pack charging mode, thereby ensuring the battery pack's longevity is preserved.

7. Important Charging Notes

- Longest life and best performance can be obtained if the battery pack is charged when the air temperature is between 65 °F and 75 °F (18 ° – 24 °C). DO NOT charge when the battery pack is below +40 °F (+4.5 °C), or above +104 °F (+40 °C). This is important and will prevent serious damage to the battery pack.
- It is normal for the charger and battery pack to generate warmth during the charging process, and this should not be considered indicative of any issue.
- In order to support efficient cooling of the wireless battery base, it is advisable to refrain from placing the charger or the wireless battery base in environments that are warm or humid.

8. Battery Usage and Maintenance

- Recharge the battery using only the charger provided by AUTDER. Using a charger intended for a specific type of battery pack with a different battery pack can pose a fire hazard.
- When the battery is not in use, store it separately from other metal objects such as paper clips, coins, keys, nails, screws, or other small metal items that may inadvertently create a connection between the battery terminals. Short-circuiting the battery terminals together could result in burns or a fire.
- In abusive conditions, there is a risk of liquid being expelled from the battery; it is essential to avoid contact. In case of accidental contact, flush the affected area with water. If the liquid comes into contact with the eyes, seek immediate medical assistance. Liquid expelled from the battery may lead to irritation or burns.

9. Use the Air Pump as a Pressure Gauge

- Connect the high-pressure inflation hose 19 to the inspected object.
- Short press 'M' button to activate the unit.
- The display 13 on the pressure gauge will show the real-time pressure of the object.

10. Storage Recommendations of Air Compressor

To ensure proper storage of the air pump, it is advised to keep it indoors in a suitable environment. Optimal storage conditions include a cool and dry area, while avoiding exposure to direct sunlight as well as extreme temperatures (either excessive heat or cold).

Notes: The device does not require any extra lubricant for its operation.

11. Repair

To troubleshoot the air pump not turning on, check the fuse, ensure the high-pressure inflation hose and accessories are securely attached, and refer to the Troubleshooting Error Codes chart if an error code is displayed.

12. Table Reference

12.1 Table of Error Codes for Troubleshooting and Resolution:

Fault	Methods for fault removal
Slow inflation rate	1. Check to ensure that there is an adequate power supply. 2. Examine the high-pressure inflation hose for any signs of leakage. 3. Verify that the high-pressure inflation hose is properly connected to the tire. 4. Check the inflated objects for any signs of leakage.
The pump is powered on but cannot inflate.	1. Check to ensure that there is an adequate power supply. 2. Inspect to see if the current tire pressure is higher than the preset value.
Normal inflation but zero pressure display.	1. The object being inflated is not within the air pump's capacity range.

The air pump automatically power off or the LCD screen will turn off after attaching the high-pressure inflation hose.	1. When the air pump enters the sleep state, you can activate it by short pressing the 'M' button.
The tire pressure has decreased.	1. The air pump will shut off once the inflation pressure reaches the preset value, with a slight margin of 1-2 PSI, and there may be a pressure differential between the air inlet and air outlet.
The pump is automatically powered off as a protective measure when it detects over-temperature conditions during inflation.	1. While inflating, if the air pump temperature becomes excessively high, the pump will automatically power off for protection. Once the air pump has sufficiently cooled, it will resume its operation.
The air pressure does not return to zero.	1. In the event of errors or malfunctions caused by abnormal operation, please power off the air pump and then restart it by long-pressing the 'M' button.

12.2 Reference table of the pressure unit and display range:

Pressure Unit	Pressure Range
PSI	3-180
Bar	0.2-12.4
kPa	20.6-1241
Kg/CM ²	0.2-12.6
Reference Temperature and Humidity of Test Environment	
65°F-75°F(18°C-24°C) 45%RH-65%RH	

Remark: (1PSI≈0.069Bar≈6.9kPa≈0.07Kg/CM²)

12.3 Reference Table of Inflation Pressure Values and Inflation Times:

		Stock Size	Tire Pressure Value (Reference)	Expected Full Time	Reference Temperature and Humidity of Test Environment
	Car Small trucks (Default:36psi)	195/55/R16 85V	32-36psi	2'30"	65°F-75°F(18°C-24°C) 45%RH-65%RH
		215/45/R18 89W	32-36psi	2'47"	
		215/55/R17 94V	32-36psi	3'39"	
	Motorcycles (Default:36psi)	Motorcycles, electric Motorcycles tire	26-40psi	1'30"	
	Bicycles (Default:60psi)	12/14/16 inch bicycles tire	30-50psi	10'	
		20/22/24 inch bicycles tire	40-50psi	12'	
		26/27.5/29 inch bicycles tire	40-65psi	15'	
		700C road bike open tire	100-130psi	18'	
		700C road bike tube	100-145psi	20'	
	Balls(Default:8psi)	Volleyball	4-5psi	20'	
		Basketball	7-9psi	25'	
		Football	8-16psi	30'	
		Rugby	12-14psi	40'	

Notes: The provided inflation pressure values and inflation times are intended for reference purposes only. It is recommended to adhere to the inflation requirements specified in the product's instructions as the standard.

1-YEAR LIMITED WARRANTY

Each AUTDER smart portable tire inflator is warranted to be free from defects in material and workmanship. This warranty excludes damage resulting from neglect, misuse, contamination, alteration, accidents, or abnormal operating or handling conditions.

Please note that this warranty applies to the original purchaser and is not transferable. This limited warranty does not cover failures due to abuse, accidental damage or when repairs have been made or attempted by anyone other than AUTDER and its Authorized Service Centers. A defective product meeting the warranty.

At AUTDER, our commitment is to deliver outstanding products and exceptional customer service. If you have any questions or concerns, please do not hesitate to contact us at NASupport@autder.net & GBSupport@autder.net.