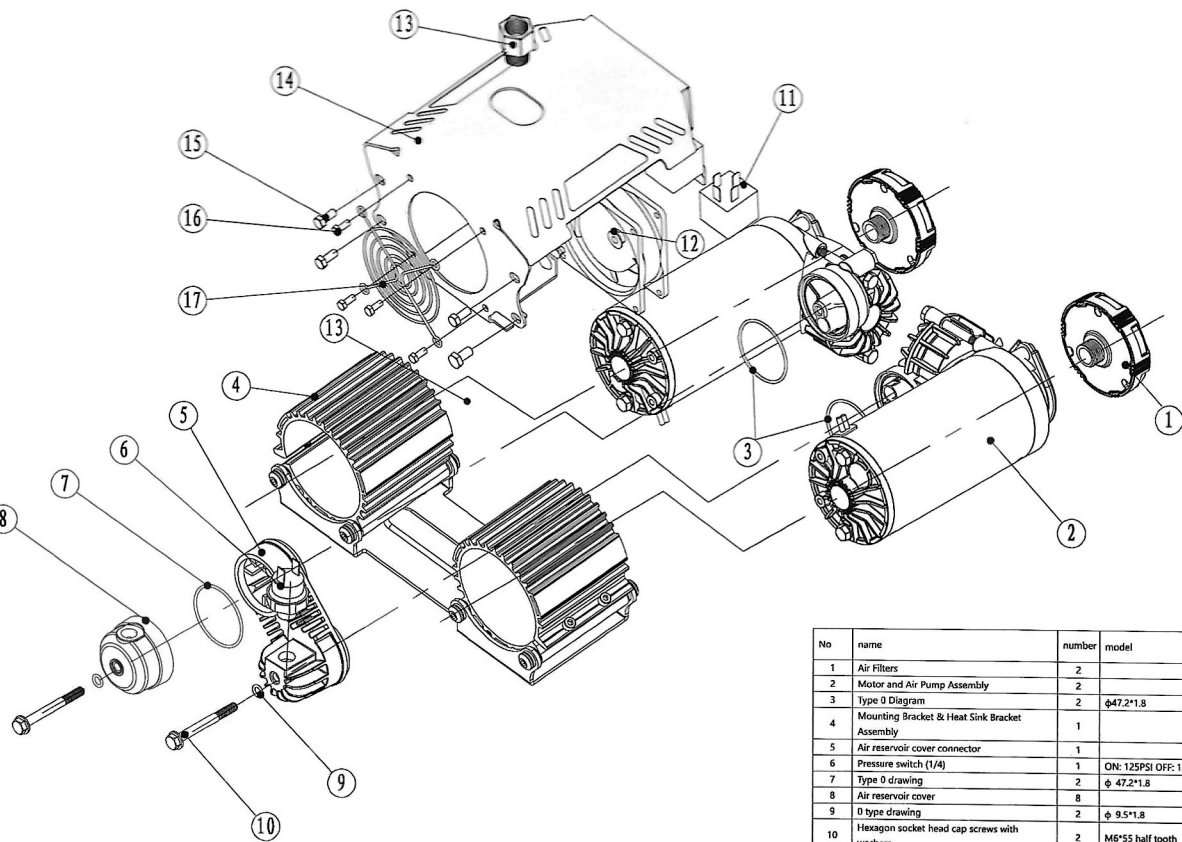


8 Compressor Decomposition Diagram and List

For maintenance parts referenceciye:

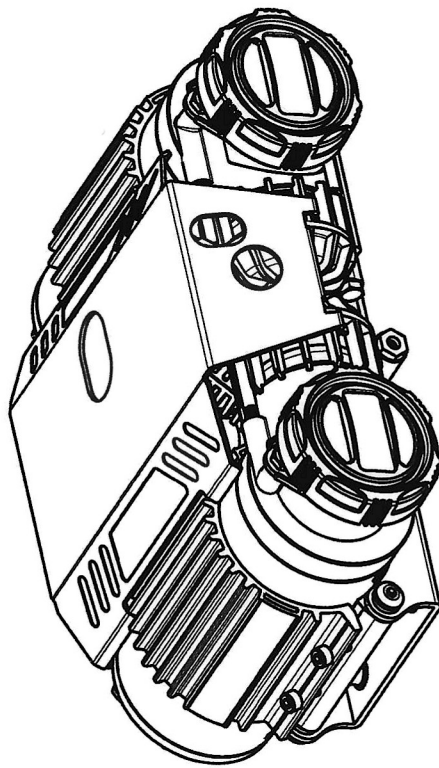


No	name	number	model
1	Air Filters	2	
2	Motor and Air Pump Assembly	2	
3	Type O Diagram	2	φ47.2*1.8
4	Mounting Bracket & Heat Sink Bracket Assembly	1	
5	Air reservoir cover connector	1	
6	Pressure switch (1/4)	1	ON: 125PSI OFF: 155PSI
7	Type O drawing	2	φ 47.2*1.8
8	Air reservoir cover	8	
9	O type drawing	2	φ 9.5*1.8
10	Hexagon socket head cap screws with washers	2	M8*55 half tooth
11	Automotive Relay	2	JD1912 DC12V 40A
12	DC Fan	1	ADDA 8025 DC12V
13	Cylinder Head Inner and Outer Wire Adapters	1	(Inner NPT1/4-Outer NPT1/4)
14	Upper Cover Plate Assembly	1	
15	Hexagon socket head machine screws	4	M5*12
16	B-type self-tapping screws	4	M5*10
17	Fan mesh cover	1	

HUSAR

BETTER STRONGER TOUGHER

WINCH



Twin High Performance
USER MANUAL

Thank you for your patronage and purchase of our products. Please read this installation guide carefully before using the first product and keep it properly. The Company is not liable for any damage caused by the failure to follow the operating instructions. As the product is constantly improving, the product you buy may be slightly different from the picture in the initial manual, please refer to the physical object purchased. Thanks!



Catalogue:

1 List of main parts

1. List of major parts and components

2 Preparation before installation

2. 1 Notes before determining the best installation position
2. 2 Installation Kit Recommendations

3 Install compressor

3. 1 Drilling and installation of the compressor
3. 2 Installation of the air cleaner
3. 3 Connect to the air system
3. 4 Install and connect the electrical system 4. Test the

4 Use and inspection

4. 1 Air pressure leak test
4. 2 Air lock drive test
4. 3 Operation test of tire inflation and manual pneumatic tools
4. 4 Inspection

5 Troubleshooting

5. 1 Electrical fault diagnosis

6 Technical Parameters

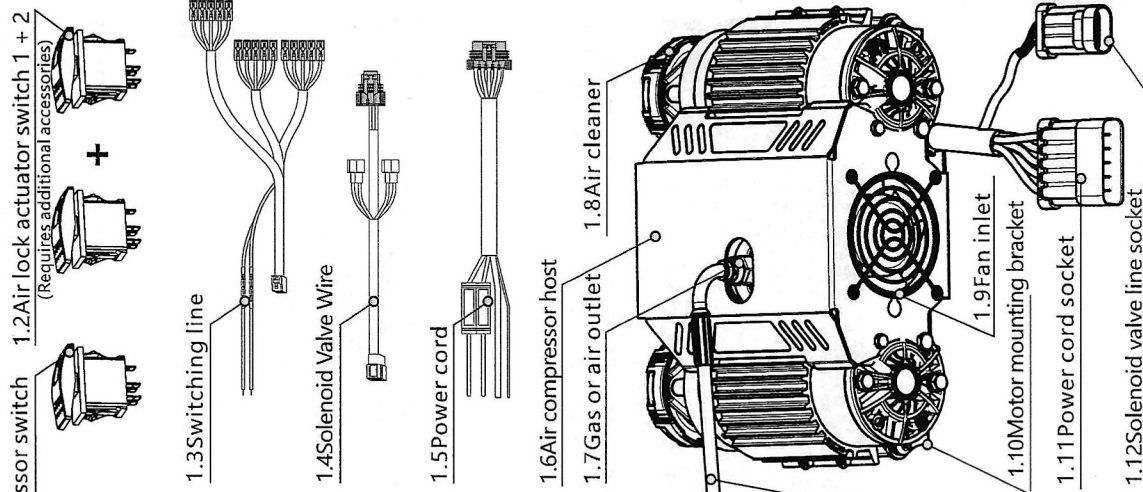
7 Wiring diagram

8 Packing list

9 Compressor exploded view and list

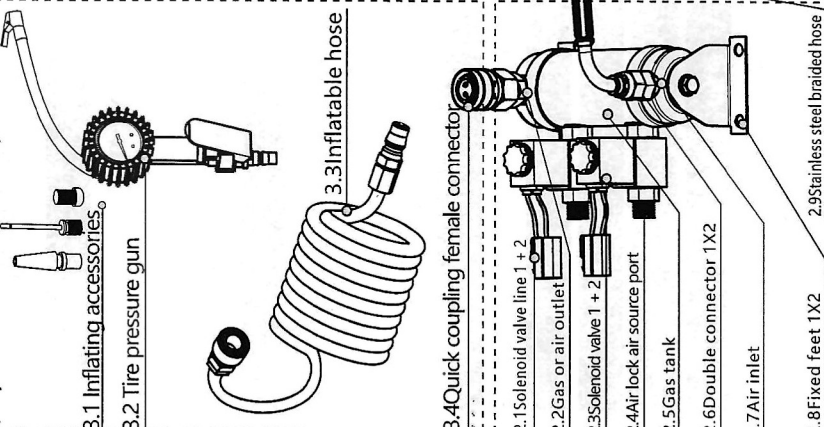
1 List of product parts

1. Air Compressor:



3. Inflatable kit:

(Requires additional accessories)



2. Air lock lock tank kit:

(Requires additional accessories)



2 Preparation before installation

2.1 Notes before determining the best installation location:

Note: The ideal location of the compressor should consider the following points:

2.1.1 The position shall be convenient and close to the differential lock; if the inflation kit is selected for tire inflation, also consider the introduction and connection of the air lock hose.

2.1.2 Stay away from the heat source (say, do not be too close to the exhaust system or directly behind the radiator, etc.).

2.1.3 The location shall be safe from interference and damage from the road surface.

2.1.4 Avoid long-time exposure to direct sunlight.

2.1.5 Keep away from excessive water vapor (e.g. exposed to sprayed or rain passage).

2.1.6 The installation position shall be higher than the highest wading line of the vehicle to avoid being submerged when crossing.

2.1.7. The position must have a dry cold air flowing freely to the air filter.

2.1.8 This position shall facilitate the replacement of the air cleaner for filter removal and cleaning (Unless an intake extension tube is to be used). If the intake extension tube is to be used, consider the distance between the compressor installation position and the actual inlet point (the length of the intake extension tube is kept to a minimum).

2.1.9 This position must allow the compressor motor mounting bracket to secure the compressor firmly, and the four bolts shall be fixed on the corresponding sides.

2.1.10 The parts of the compressor may become hot during long operation; the compressor should be located from where children or pets may contact.

2.1.11 This position should be the shortest distance near the power supply (longer power cable, in-line resistance = less air flow).

2.1.12 The compressor should not be installed close to the passenger of the vehicle, and the sound generated by the machine will be annoying and uncomfortable.

2.1.13 Compressors shall not be installed near the equipment sensitive to the electromagnetic field of the DC motor (e.g. compass, radio / GPS antenna, engine management sensor, etc.).

2.1.14 Where allowed, the compressor shall be installed close to the circulating air or in a single air reservoir system, or in the middle between the two axles of the dual air reservoir system.

2.1.15 Do not install the compressor in the unsprung position (For example, Do not mount directly to the axle or engine block).

2 Preparation before installation

Warning

To ensure the reliability of product installation, the following are important: Before installation, read this installation guide to correctly install the compressor on the vehicle.

2.2 Installation Kit Recommendation: Although this guide describes all the steps required to install the pneumatic air source, it is recommended to install the air compressor by trained professionals to ensure that your air compressor kit is suitable for your needs. In addition, ensure that you have all other necessary installation tools, parts, and materials for this installation; to reduce your installation time, **refer to your Differential Air Lock Operation and, Service Manual for information on operation, repair, driving techniques, or troubleshooting.** (Don't miss every item. Any one step is very important!) Here is a list of the tools and supplies required to complete this installation:

2.2.1 List of tools:

1. Tool sleeve;
2. Wrench and drill bit;
3. A art knife to cut nylon tubes;
4. Leakage test instrument;
5. Multimeter or test pen;
6. soldering iron.

2.2.2 List of supplies:

1. Sealant mixture for quick joint joints and threads; (E. g. # 567 tube thread high performance sealant or PTFE tape for piping)
2. A mixture of soap and water used for the testing of air leaks;
3. Welding or automobile criping for manufacturing electrical joints;
4. Electrical tape or heat shrink pipe for insulating electrical joints.

3 Install compressor

3.1 Drilling and installation of the compressor: determine the optimal installation position of the compressor, determine the position of the installation hole (attached formwork Figure 1), and drill into the body bracket. Note: For greater mounting flexibility, there are eight holes on the compressor floor, but only four of them can be used to ensure a good distribution of the compressor weight.

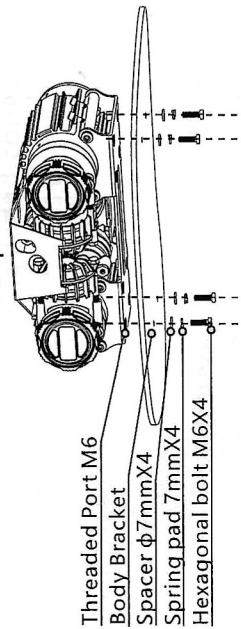
3.1.1 Installation method 1: directly mounted on the body support (see attached Figure 2);

3.1.1.1 To drill four 8 mm diameter mounting holes on the body support. Note: drill out the mounting hole as accurately as possible. The opening openings may be widened to 10mm to compensate for misalignment.

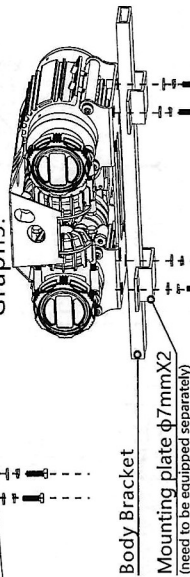
3.1.1.2 From the other side, assemble the hexagonal bolts (coated with sealant) and spacers by drilling new holes and tightening them to approximately 6 Nm torque with the threaded ports on the motor mounting bracket.

(sealant coated) and spacers, and tighten them and the threaded ports on the motor mounting bracket to a torque of approximately 6 Nm.

Graph2.



Graph3.



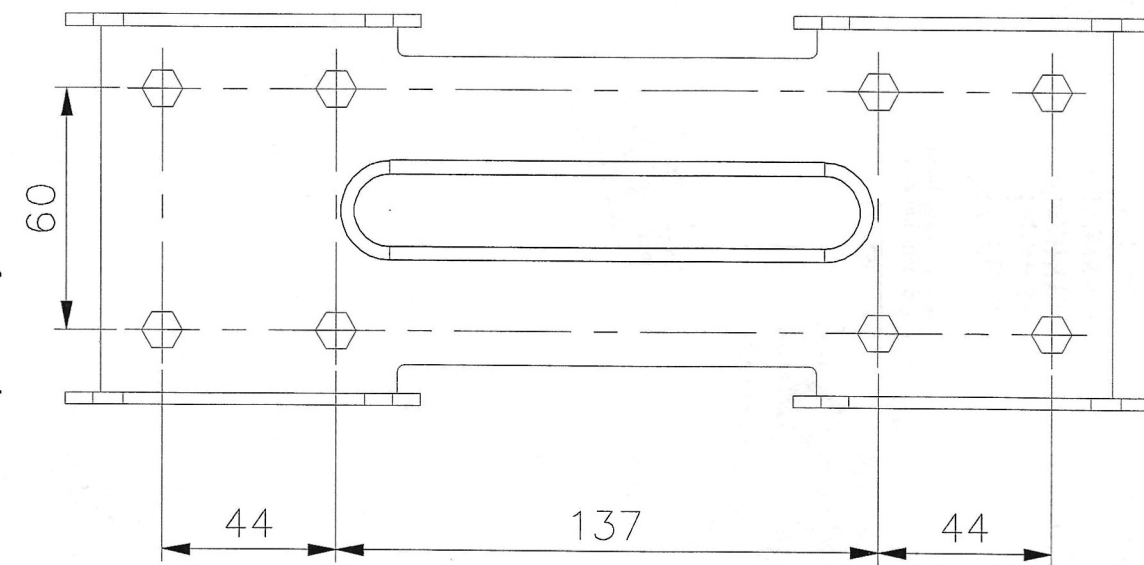
3.1.2 Installation method 2: Mounted to the body bracket by means of a mounting plate (see attached figure 3)

3.1.2.1 Connect the mounting plate with the motor mounting bracket, and fix the middle through the body bracket.

3.1.2.2. Assemble the hexagon bolts (coated densely Seal) and gasket to tighten the thread mouth on the motor mounting bracket to a torque force of about 6 Nm.

3 Install compressor

Figure 1. Do not use this as an installation template. Please use the separately attached 1:1 template.



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3 Install compressor

3.2Installation of air filter (if extended): If the air inlet air filter is to be repositioned, use the inlet extension tube to relocate it to a more suitable position for ventilation.

3.2.1 Notes before installation:

3.2.1.1The extended length and inner diameter of the extended tube will limit the in take flow and negatively affect the performance of the compressor. In severe cases, this may cause overheating and / or damage to the compressor parts.

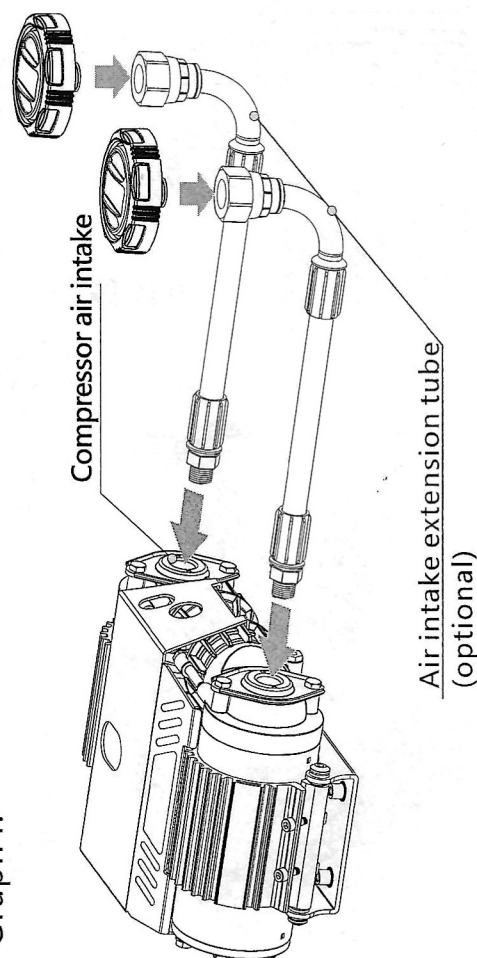
3.2.1.2It is not recommended to connect the compressor inlet to the inlet or outlet of other equipment. Negative pressure (vacuum) generated when the engine in take supply runs will adversely affect the compressor performance.

3.2.1.3Do not pass the extended pipe through and exposed to high temperatures as this will preheat the air inlet and reduce the compressor performance.

3.2.1.4Do not expose the extension pipe to the water and easy to play to the places.

3.2.2Installation method:As shown in Figure 4, screw the outer threaded connector (M17X1) into the compressor air inlet (M17X1) and connect the inner threaded connector (M17X1) to the air filter (M17X1),Just tighten it.

Graph4.



7

3 Install compressor

3.3 Connected air system: Air compressor outlet can be used in a variety of compressed air applications, including: air lock activation, tire inflation and manual inflation tools, etc. Each of these applications has different requirements for outlet connections. Specific connections are recommended as follows:

3.3.1 Air lock activation connection: as shown in Figure 5;

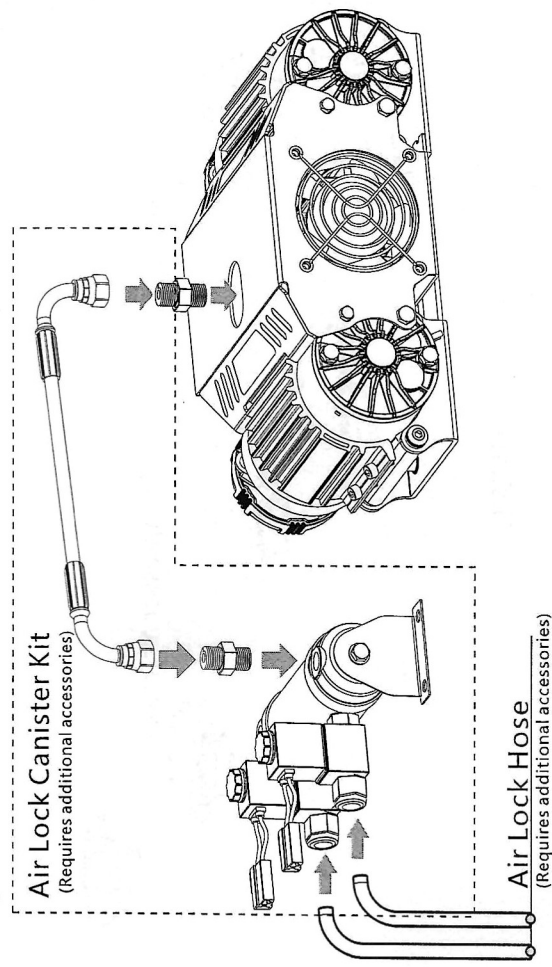
3.3.1.1 Install the cylindrical pipe thread and stainless steel braided hose on the compressor air outlet and air tank inlet and tighten them respectively.

3.3.1.2 Insert the air lock hose into the air lock air source port and lock it tightly. (Refer to your air differential lock operation and service manual for details)

The air lock tank kit is available as an optional accessory and the list includes:

1. The air tank body with a mounting bracket;
2. 2X1 / 4 double joint;
3. Solenoid valve for installing air lock with 2x1 / 4 port: one as air lock source, the other for installing pump body kit;
4. Stainless steel braided hose with 2x1 / 4 threaded port: for

Graph5.



3 Install compressor

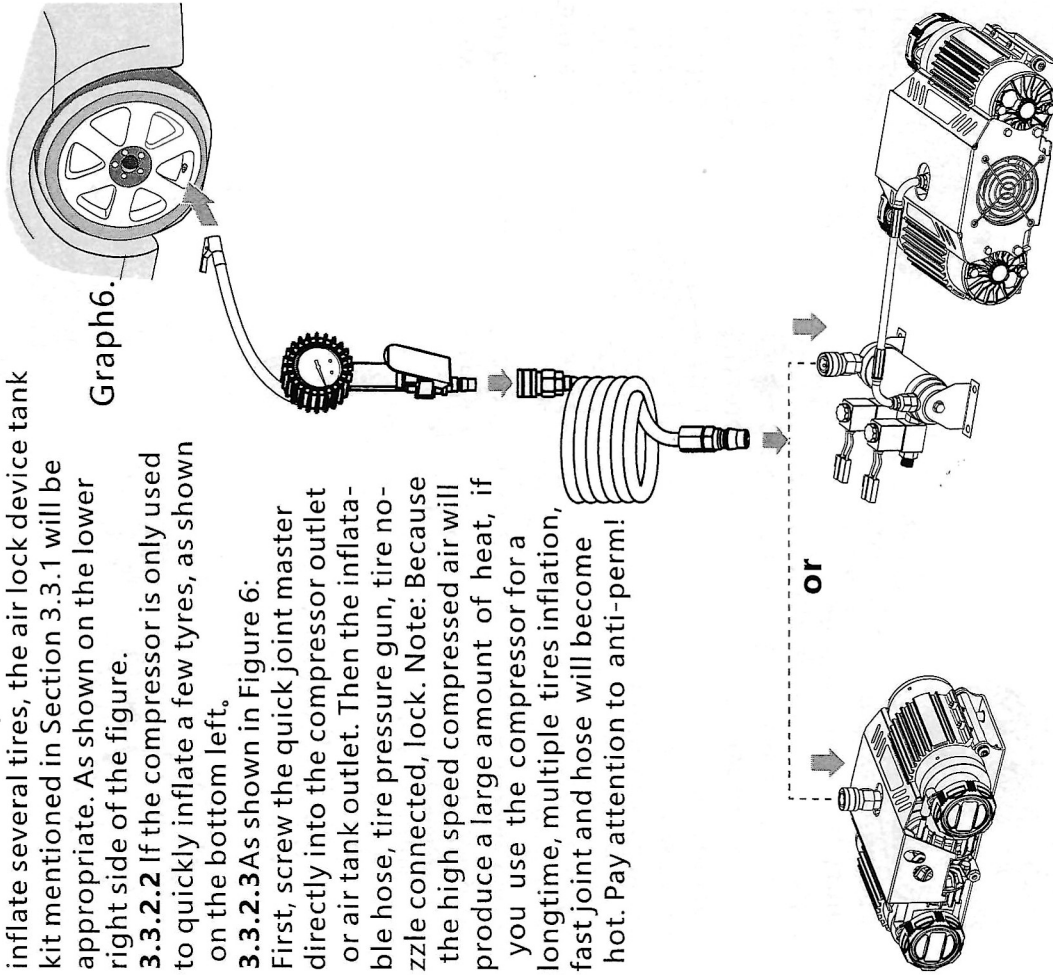
3.3.2 Tire inflation connection: If the compressor is used for a long time, it is recommended to connect the compressor to a separate gas storage tank with suitable accessories. This will dissipate heat from compressed air and will also allow the compressor to operate more efficiently.

3.3.2.1 If the compressor is used to activate the air lock device and inflate several tires, the air lock device tank kit mentioned in Section 3.3.1 will be appropriate. As shown on the lower right side of the figure.

3.3.2.2 If the compressor is only used to quickly inflate a few tyres, as shown on the bottom left.

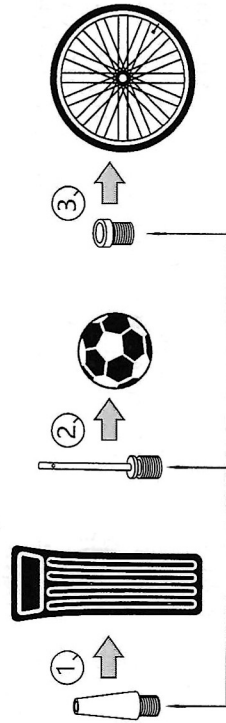
3.3.2.3 As shown in Figure 6:

First, screw the quick joint master directly into the compressor outlet or air tank outlet. Then the inflatable hose, tire pressure gun, tire nozzle connected, lock. Note: Because the high speed compressed air will produce a large amount of heat, if you use the compressor for a long time, multiple tires inflation, fast joint and hose will become hot. Pay attention to anti-perm!

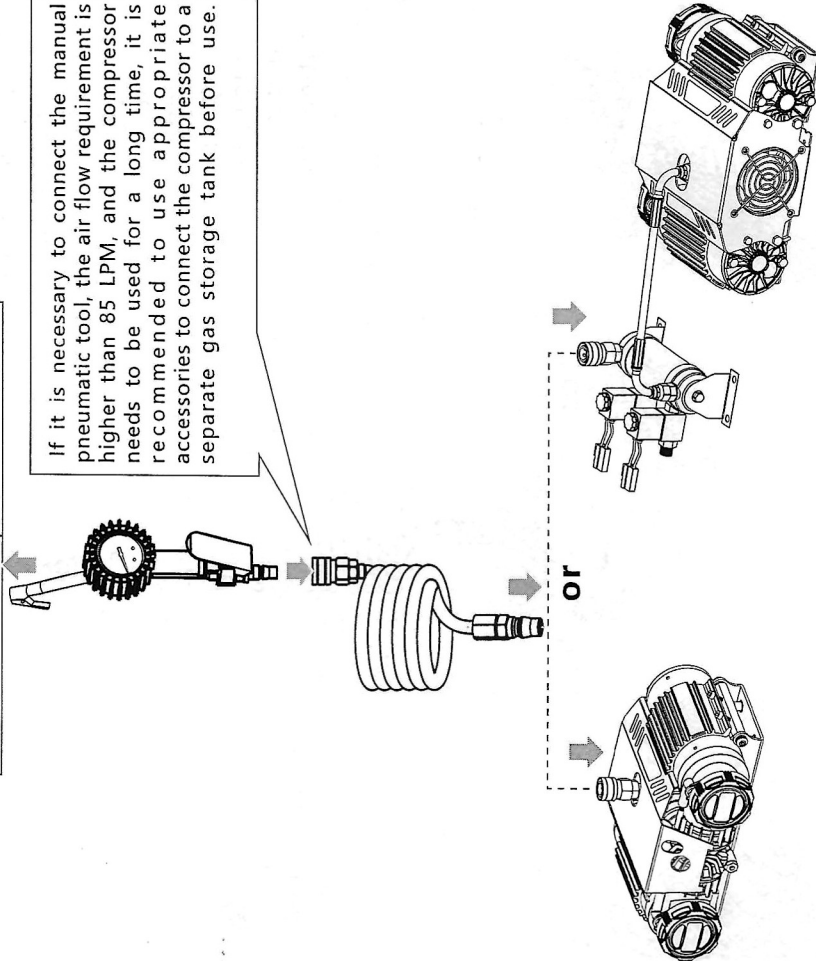


3 Install compressor

3.3.3Inflatable connections for other items: such as the need to swim ring, air cushion bed, inflatable toys, all kinds of balls, bicycles and other inflatable. As shown in Figure 7, first select the connected parts as described in section 3.3.2, and then select the appropriate accessories (1. plastic nozzle / 2. ball pin / 3. bicycle nozzle), connect them and lock them tightly.



If it is necessary to connect the manual pneumatic tool, the air flow requirement is higher than 85 LPM, and the compressor needs to be used for a long time, it is recommended to use appropriate accessories to connect the compressor to a separate gas storage tank before use.



3 Install compressor

3.4Install and connect the electrical system: When wiring the compressor switch, air lock actuator switch, and air lock solenoid valve, plug each wiring terminal to the corresponding switch terminal as shown in Figure 8.details are as follows:

3.4.1 Important matters(air system lockout only): As a safety precaution, when "switch 1" is activated, "switch 2" is activated. Therefore, if both the front and rear air locks are installed, the rear must be controlled by switch 1 and the front by switch 2. This is a safety feature that reduces the risk of accidental engagement of front air locks. If only one air lock is installed, wire the switch 1 terminal whether the air lock is installed on the front or rear axle.

3.4.2Connection of the switch wire:

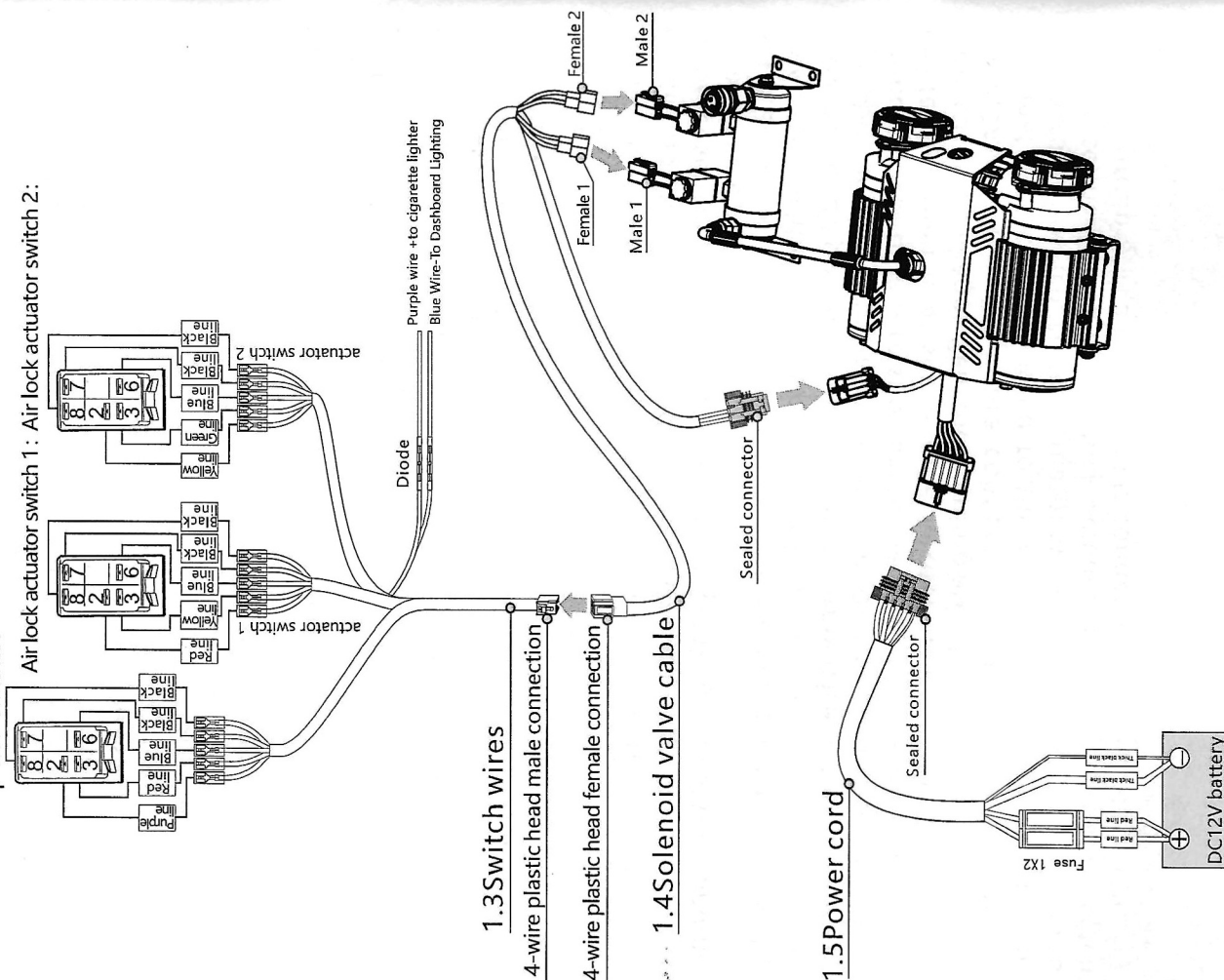
3.4.2.1Use the multimeter or 12V car test light to find the accessory power socket or smoke lighter port (Note: the required socket power supply should be DC12V, which can be fused at least and only when the vehicle ignition key is in the ACC position or Power on at ON position). Using a soldering iron or automotive crimped connector, connect a purple wire at the lead end to the power outlet or cigarette lighter port positive electrode (+). Note: If shorten purple wire, ensure not to remove the diode in the heat shrink tube above it (protect sensitive electronics from current leakage). Seal the bonding area with electrical tape.

3.4.2.2Use the multimeter and 12V vehicle test light to locate the activated dashboard light power cord (Note: the required wire shall provide DC12V power). Connect another **blue wire** to the dashboard light power cord using a soldering iron or automotive compression connector. For blue wire shortening, be sure not to remove the diode inside the upper heat shrink tube (protect the sensitive electronics from current leakage). Seal the bonding area with electrical tape.

3.4.2.3As shown in the figure, connect the switch line terminal to the terminal post corresponding to the compressor switch and the air lock actuator switch. Note: Actuator switch line 1 (a group with a red line) is connected to the air lock actuator switch 1; actuator switch line 2 (a group with a green line) is connected to the air lock actuator switch 2.

3 Install compressor

Air lock actuator switch 1: Air lock actuator switch 2:



3.4.3 Connection of the solenoid valve line: as shown in Figure 8;

3.4.3.1 Connect the solenoid valve wire and lock it. NOTE: The wire at one red end matches the purple wire at the other end, and each other wire color matches the same color.

3.4.3.2 Insert the solenoid valve line bus connector 1 controlled by the switch 1 into the solenoid valve line public connector 1 (the yellow wire corresponds to the yellow wire). Insert the solenoid valve line bus connector 2 controlled by the switch 2 into the solenoid valve line public connector 2 (green wire corresponds to green wire) and lock it in. Note: If only one solenoid valve is used, wrap the other one with insulating tape, and fix it with tie tape.

3.4.3.3 insert the solenoid valve line sealing connector into the compressor solenoid valve line socket and lock it.

3.3.4.4 Connection of power cord: Note: Although the wiring harness in this kit is designed for 12 V or 24 V power systems, the DC motor of this compressor is designed only for DC12V voltage battery. Connecting the compressor to an incorrect voltage battery can cause serious damage to the compressor's DC motor; do not connect the power cord to the compressor when the car key is in the ACC position as this may cause the compressor to start unexpectedly. Therefore, please follow the power connection instructions below carefully.

3.4.4.1 Insert the seal connector on the power cord into the compressor power cord socket. Lock can. Carefully arrange the power cord casing from the compressor mounting position to the battery position.

3.4.4.2 Trim 4 wires at the other end of the power cord to the correct length in order to connect to the battery.

Note: When one of the wires requires an additional length to reach the battery, it can only be extended with the same size diameter.

Note: In-line fuses should be connected as close to the battery as possible. When shortening the red wire, do not remove any of the fuses.

If you need to extend the red wire, only extend the red wire on the opposite side of the fuse from the battery.

3.3.4.3 Press the suitable vehicle terminals (not supplied) to each red wire (5mm²) and press the suitable vehicle terminals (not supplied) to the black wire (8mm²) On (Note: 2 black wires (thick black wires) and fine black wires) need to be connected together, so they can be pressed into the same terminal. **13**

3 Install compressor

3.4.4.4 Connect two red wires to the battery positive electrode (+) terminal and secure with the bolt nut on the battery. Connect two black lines (thick black line and thin black line) to the negative electrode (-) terminal of the storage battery, and clamp the nut to fix it.

Note: Over time, vibration may cause wire wear and cause a dangerous electrical short circuit. Attach all insulated wiring nesses along the entire path with cable tie.

4 Test the use and inspection

4.1 Air pressure leak test

4.1.1 When the vehicle is parked and the engine is closed, press the compressor switch to open the compressor. When the switch light is on, it means the power is on and the compressor starts to inflate. Wait for the air to enter the system and be filled. At this time, the air pressure switch works, and the compressor automatically stops running.

4.1.2 Compressor shall not be started again for at least 15 minutes. The air system has a leak in the system. If a leak is found, spray the mixture of soap and water on to the tracheal system (filling the compressor with gas). If there is a leakage point, air bubbles will appear, check the cause of the leakage and repair it well. If the leak remains, the joint may not be adequately tightened. Remove the joint, clean the thread, and then reapply the thread sealant or wrap the sealing tape.

4.2 Air lock drive test (air lock system only): test whether the air system, electrical system and air lock differential work correctly.

4.2.1 Support the vehicle so that the wheels can rotate freely (for example, put the car on the car repair shop crane, etc.) to close the parking brake, the gearbox is in neutral, and the air lock actuator switch is in the "off" state. Turn the ignition switch to the ON " (ON) position. The symbol on the air lock switch cover shall not be lit.

Open the compressor switch and inflate the air source to the maximum pressure. Turn a wheel with your hand. The wheels shall rotate freely, and the wheels on the other side shall roll in the opposite direction without any resistance or slight noise in the differential.

4 Test the use and inspection

4.2.2 Turn the air lock switch to the " on position. The symbol on the switch cover shall be lit. Rotate the same wheel again, and check that both wheels should rotate together. Turn off the switch again. Turn the same wheel again, the wheel shall rotate in reverse again.

4.3 Tyre inflation and manual pneumatic tool operation test: turn the car ignition switch to "ON" (on) position. Open the compressor switch, the compressor shall start operating, and the symbol on the air lock switch cover shall be lit. You can start your normal use right now. 4.; Check: After the installation test is completed, it is recommended to complete the following checklist to ensure that you do not miss any important steps and ensure that the air compressor can operate safely and normally.

4.4.1 The air system has passed the leak test.

4.4.2 The air cleaner position is not exposed to moisture, dust or dirt. All air lines and wires have been firmly tied with cables and are not caught or rubbed. The perforation position of the line has been protected with a rubber protective cover.

4.4.3 The switch has been firmly installed within the scope of the operator, but away from danger and accidents.

4.4.4 The switch function is normal, the switch light can be lit and turned off, and the corresponding function is running normally.

5 Troubleshooting

5.1 Electrical fault diagnosis: When the air compressor fails and does not operate, in order to be accurately judged, all the steps must be operated in the following order. Before troubleshooting the compressor, ensure that the compressor pipe, reservoir and connected accessories are ventilated without air pressure; all connections are connected according to the wiring diagram; the vehicle ignition switch is in the ACC power position and the isolating switch is "on".

5.1.1 Battery troubleshooting: Use a multimeter to check the voltage on the battery terminal to ensure that the battery is operating normally and fully charged. Is the battery voltage at least 12.5 V, No, the battery voltage is insufficient, recharge or replace the battery; Yes, continue with the following steps.

5.1.2 Motor troubleshooting: Disconnect the connector plug at the tail outlet of the compressor motor from the wiring harness. Connect a new wire directly from the negative (-) terminal of the battery to one compressor motor; connect another new wire from the positive (+) terminal of the battery to the red wire of the same compressor motor. This operation is also repeated for the second electric motor. Is the compressor being started during the wiring? No, an internal compressor motor problem; yes, remove the excess wires and reconnect the compressor motor. Continue with the following steps.

5.1.3 Relay troubleshooting: open the upper cover of the compressor and use the multimeter to check the relay fault; abnormal, replace the new relay; normal and continue the steps.

5.1.4 Fuse troubleshooting: open the safety box cover on the power cord and check the fuse. If found to be fused, replace a new fuse of the same type of specification. In case the fuse is caused by a short circuit, continue the following steps using the multimeter.

5.1.5 Line troubleshooting: under the power-on condition, use a multimeter to measure the disconnection situation of each line section in turn. In the case of power failure, use a multimeter to measure the short circuit situation of each line section in turn.

6 Technical parameter

Model / name	project	technical parameter
J4 /Twin High Performance Air Compressor	Rated Voltage	DC 12V -13.5V
	Rated Power	<945W
	Maximum current	<70A
	Maximum air pressure	≥ 150psi
	Filling speed	Charge 215/60R16 tires 0-48psi, time required: <100 seconds
	Continuous working time	Can work continuously for 12 hours at 40psi air pressure
	Flow rate	116L/min
	Over pressure protection	155psi
	Overheat protection	≥105°C
	Overload protection	12V 80A
	Cylinder and bore	Double cylinder at 044mm
	Product size	285*211*115 (mm)
	Net Weight	8.87kg
	Working Temperature	-20° C+50° C

7 Packing List

Product configuration and list shall refer to the final physical object.