ANG-80 FULLY AUTOMATIC INTELLIGENT DIGITAL NITROGEN GENERATOR USER MANUAL

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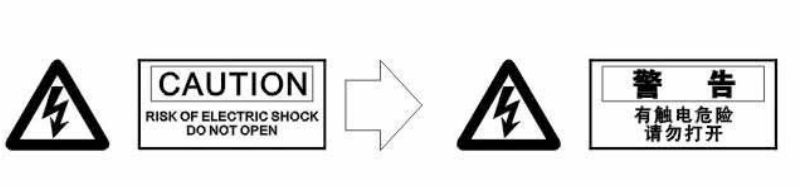
INDEX

【Please read the manual carefully before operation】

SAFETY PRECAUTIONS



WARNING: Do not expose the equipment to rain or humid equipment in case of fire or electric shock.

WARNING: Put the equipment at a ventilated place to prevent suffocation or fire.

WARNING: For safety, the external power source should be ground connected.

WARNING: The equipment must be turned off during maintenance and repair.

NOTE: The unit of red scale of pressure gage is PSI and the black scale is MPa.

NOTE: Contact the local sales agent or manufacturer if maintenance is needed.

Formula: 1Bar=1.0197 Kg/cm^2

1Bar=100kpa

1Bar=14.5psi

I INTRODUCTION

PSA (Pressure Swing Adsorption) is widely used for generating nitrogen at present. With cheap equipment, land and maintenance fee, low cost, low leak and high purity nitrogen can be generated.

PSA nitrogen inflator uses special CMS(carbon molecular sieve)to produce nitrogen. The working principle is that after pressurized O2 molecular ,which is smaller than that of N2, will be separated and adsorbed by CMS owing to the different spreading rate. Normally nitrogen generated by PSA has the characteristic of high purity (99.5%) and low leak (-60℃).

II SUMMARY

The compressed air inside tires contains a lot of water and 20.9% oxygen which will not stay inside the tire and will seep out when the tire becomes hot during running. It has been proved that when the tire pressure is 7bar the oxygen purity will drop by 5% before it stops seeping. Both oxygen and water will damage the rim and tire cord.

III SPECIFICATIONS

Vehicle applicable: Car& van

Power supply: AC220V 50Hz/60HZ

Power consumption: 30W

Nitrogen purity: 95～99.5%

Input pressure:≤10Bar/1MPa

Output pressure:＜8Bar/0.8MPa

Working temperature: -20℃～+70℃

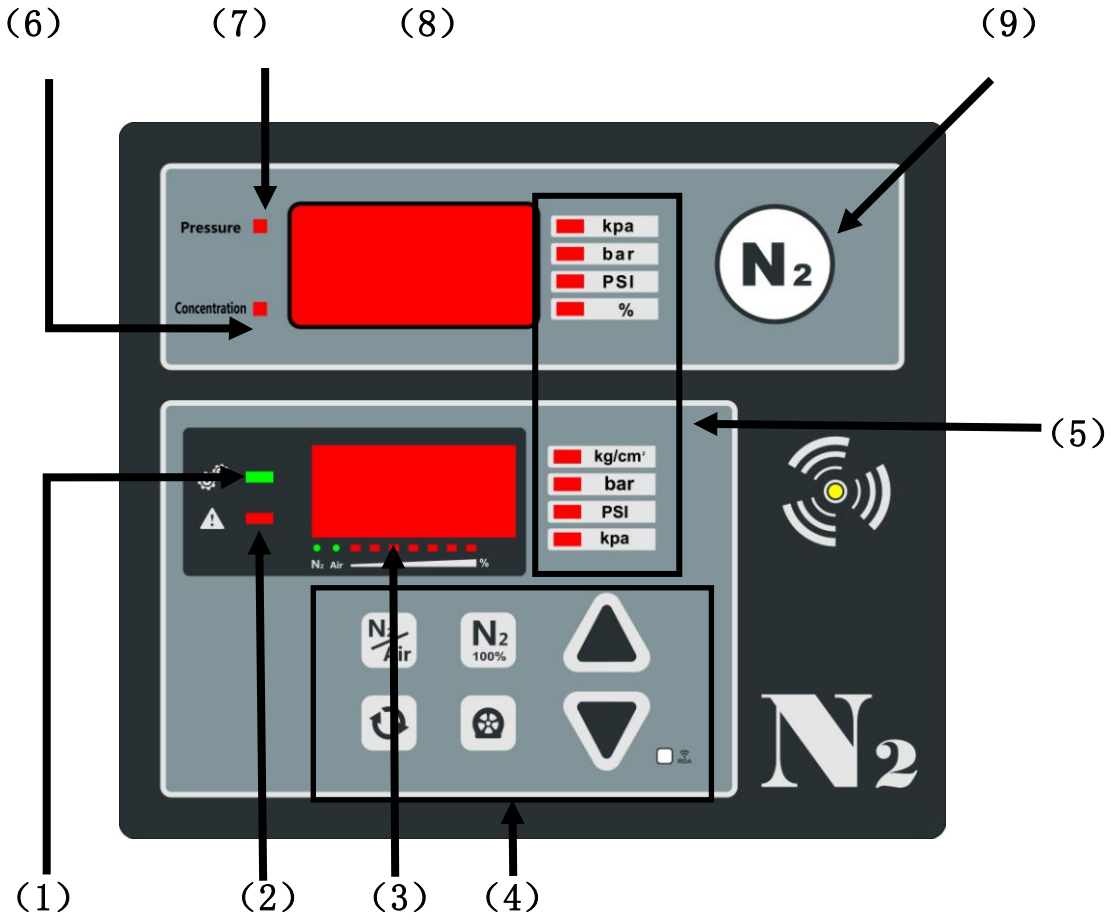
Measurement range: 5～145psi /0.3～10Bar

Precision:±1 Psi /0.07 Bar

Display mode: LED display

Tank size : 70L

IV CONTROL PANEL AND FUNCTIONS



(1) running light

(2) error light

(3)、(8) LED display window

(4) keys

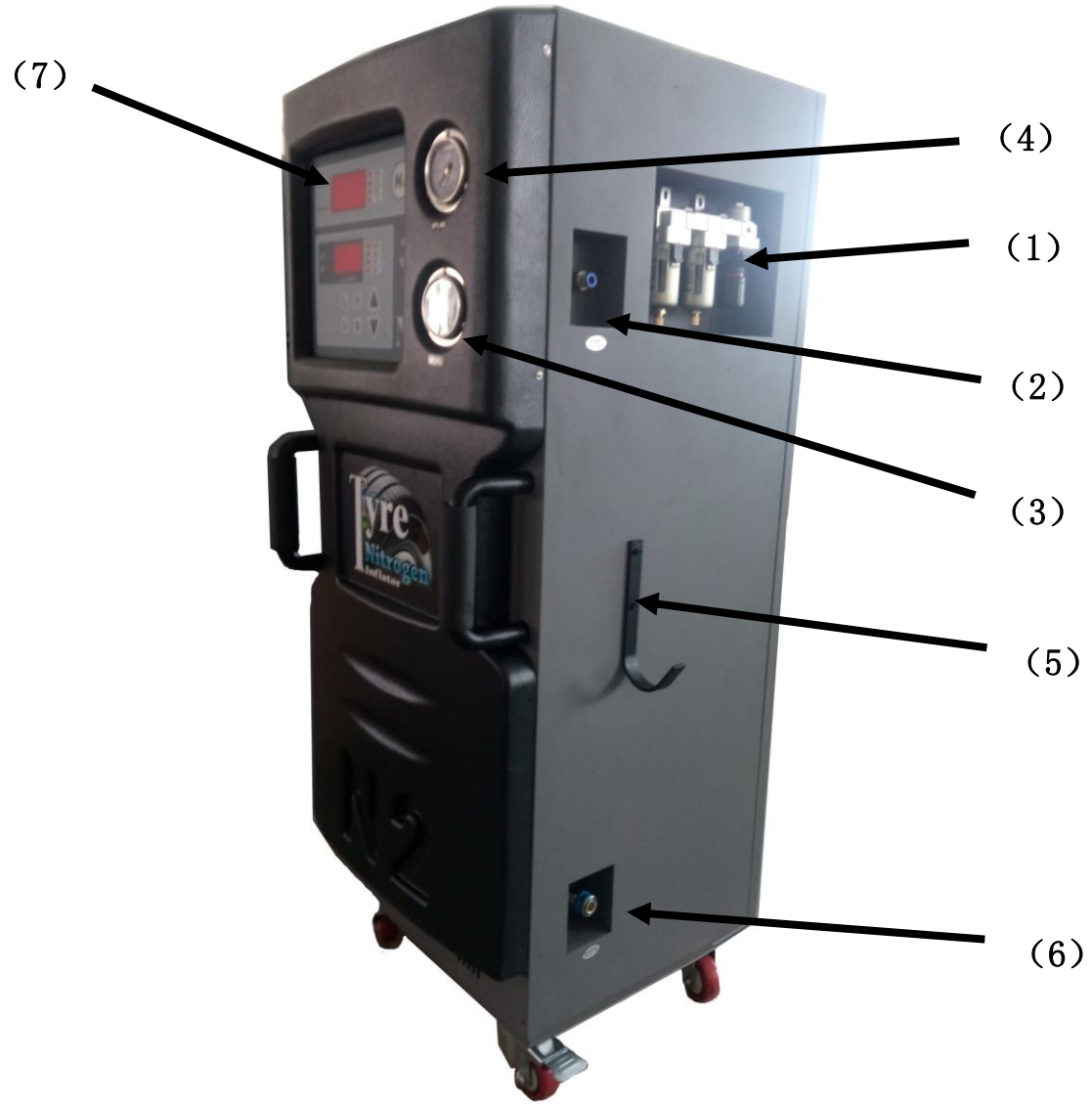
(5) unit

(6) N2 purity indicator

(7) N2 pressure indicator

(9)“N2” inflating indicator

V OVERALL APPEARANCE



(1) air filter

(2) compressed air supply port

(3) N2 pressure display

(4) compressed air pressure display

(5) hose rack

(6) tire inflating port

(7) control panel

VI EQUIPMENT INSTALLATION

1.Compressed air supply connection:

Connect the air inlet of main cabinet and the outlet of air compressor.(air flow ≥ 8cfm, air pressure145-175psi when the equipment is working.)

2.Power connection:

Connect with 220V power supply and to the ground safely.

3. Refer to the above for the functions of keys.

VII SAFETY REGULATIONS

1. The equipment should be put in the place which has a good ventilated system because it will generate nitrogen-enriched air and oxygen-enriched air which may cause suffocation or fire.
2. The equipment should be powered off or without pressure during air circuit connection.
3. The equipment must be grounded safely to ensure good use and operator’s safety.
4. Check safety device and pressure gauge regularly to make sure that the equipment works normally.
5. Do not use any pipe fittings without safety certificate.
6. Drain filter and replace filter element regularly to prolong life span.

7、The set pressure value must be within the tire safe pressure range in case of explosion.

8、Inflate when tire is cool, otherwise the pressure will not be correct because of heat.

9、Compressed air source must be clean without oil or water.

10、When inflating hose and tire valve must be in good contact to avoid leak or incorrect measurement.

VIII OPERATION GUIDE

1. Connect air supply and power. Turn on the switch and start up the equipment.

2. Tire inflating

2.1 Pressure value setting

Press  or  to increase or decrease the pressure value.

2.2 Nitrogen mode

When selecting nitrogen mode, the inflator can work only when the pressure indicated on the nitrogen pressure gauge is more than 3bar and the N2 light is on.

2.2.1 Common inflation

The default mode is nitrogen inflation when the inflator is turned on. The "N2" indicator light is illuminated at the bottom of the screen. When the tire has a certain pressure and is higher than 40 Kpa, inflation

will automatically starts

and will automatically stop inflating when the pressure reaches the set pressure; When the pressure is more than the set pressure value, it will deflate automatically until reaching the set value. When fully inflated, “End” and pressure value will be displayed on the screen alternately and gives 3 beeps continuously with flashing light until the inflation hose is taken off from the tire valve. Then system stops warning and returns to standby screen, waiting for the next operation.

When there is no pressure in the tire, the system can’t detect the pressure value and can’t inflate automatically. Press  to inflate the tire to pre-inflate, If the air pressure in the tire is less than that of 40kpa after 8 times pre-inflation, the system will stop inflating. Then Press  again to pre-inflate the tire until it reaches 40 Kpa. At this time automatic inflation is possible.

2.2.2 Purge mode

This mode is used for flat tires or tires once inflated with air to guarantee the nitrogen purity inside the tire. Press 

to enter this mode. “N2P” and the current set pressure value will be displayed alternately (During inflation

real time pressure value is displayed).

For flat tires, Firstly, press  to pre-inflate. When tire pressure is over 40KPA, it will start inflation automatically. When tire pressure reaches 80% of the set value, it begins to deflate, meanwhile "F 1" and the real time pressure with be displayed alternatively until inside tire pressure is less than 40KPA and then it will inflate again. When pressure reaches the set value, inflation stops automatically; If the pressure is more than the set pressure value, it will deflate automatically until reaching the set value.

For tires once inflated with air and pressure inside is over 40Kpa, system will deflate first. "F 1" and real time pressure will be displayed alternatively until the inside pressure is less than 40KPA, and then starts inflating. When tire pressure reaches 80% of the set value, it begins to deflate again, meanwhile "F 2" and the real time pressure with be displayed alternatively until inside tire pressure is less than 40KPA and then it will inflate again. When pressure reaches the set value, inflation stops automatically; If the pressure is more than the set pressure value, it will deflate automatically until reaching the set value.

The inflator is defaulted 2 times purse. When the tire is fully inflated, the screen alternately displays "End" and real time pressure values and gives 3 beeps continuously with flashing light until the hose is taken off from the tire valve. Then system stops warning and returns to standby screen, waiting for the next inflation.

2.2.3 Tire expansion inflating mode

2.2.3.1 Expansion value setting

In the system standby state, press  and then  to enter expansion inflating mode. Press  to enter expansion inflating mode,the system defaults to "0", press  or  to increase or decrease the pressure value, the range of the value is 0~200kpa,

press  to save, press  to exit.

2.2.3.2 Tire expansion inflating

In the system standby screen, press  and then  to enter expansion inflating mode. “diL” and the current set pressure value will display on the screen alternately. When the tire is inflated to the value that equals to the sum of current set value and tire expansion pressure coefficient value, stop inflating and keep waiting for 1 second, and at the same time the screen will show “diL” and current detected value alternately. 1 second later, the system deflates the tire to the set pressure value and completes inflation.

2.3 Air inflating

Press  , the "AIR" indicator is illuminated at the bottom of the screen. The current source of the inflation is air, and the method of inflating is the same as that of nitrogen.

IX ERRORS

Error 1 (Er 1): Loss or pressure-drop of compressed air source, hose falling off, tire leak or bad contact between hose and tire valve.

Error 2 (Er 2): The set pressure value is more than the initially set maximum pressure value or less than the initially set

minimum pressure value.

Error 3 (Er 3): The set inflating pressure value is more than compressed source pressure value.

When error occurs, the error code will displayed on the screen and at the same time error light will be on with 3 continuous beeps. If the hose is connected with tire and there is pressure inside, then when removing the hose, system will return to Fig.5 standby interface. If the hose is not connected with the tire, error code will display repeatedly for 3 times and return to Fig.5 standby interface.

X MAINTENANCE

Filter element replacement:

Press on the black button on the filter shell and drag down to remove the protecting shell as shown in Fig.17;Then remove the transparent cover as shown in Fig.18; Take off the fixed filter element cover and replace a new one as shown in Fig.19.

Fig.17

Fig.18

Fig. 19