PREMIUM PLUS / GRIPPER INSTRUCTIONS

1 - INSTALATION

The equipment is intend to indoor or outdoor use. Please follow the installation intructions to achieve the best results in performance and safe operation.

1.1 The power supply cable must be connected to an efficient protective conductor.

1.2 Do not allow air leakage between hose and tire for efficient inflation. If leakage occurs inflation precision fails.

1.3 Make sure the electric network voltage is 90~240 VAC, 50 /60 Hz.

1.4 The power supply cable must be connected to an efficient protective conductor.

1.5 The equipment must be connected to a 10 A circuit breaker in its close proximity and within easy reach of the operator. The circuit breaker shall be marked as the disconnecting device for the equipment.

1.6 It is recommended that a 30 mA RCD be fitted at the power source.

1.7 Do not connect other equipments such as refrigerator, compressors and vacuum cleaners to the same electric circuit.

1.8 Make sure the equipment inflow pressure is not higher than 16.0 bar (232 psi, 1600 kPa). Otherwise use a regulating pressure valve or contact your local supplier requiring one.

1.9 It is recommended that a ball valve be installed at air output, close to the equipment. Before connecting the air intake hose, open it for 10 seconds to remove possible particles inside the pneumatic line.

1.10 Install the Operation Instructions Board arround the equipment within 50 cm max. distance. It has to be completely visibly and readbly by the user.

2 - OPERATION MODE

2.1 - HOW TO USE THE KEYBOARD

2.1.1 PLUS and **MINUS** keys: These keys select the desired pressure for the tire to be inflated. The allowed values for the desired pressure are between 0.2 bar (3 psi, 20 kPa) and 10.0 bar (145 psi, 1000 kPa).

2.1.2 ARROWS key: This key allows to see the desired pressure in another pressure unit.

2.1.3 FLAT TIRE key: This key must be pressed to starts the inflation/deflation process if the tire has an internal pressure lower than 0.2 bar (3 psi, 20 kPa).

2.2 - FUNCTIONING

2.2.1 Make adjustments through the PLUS and MINUS keys to obtain the desired pressure. Connect the inflating chuck to tire and release it only when the beep is heard or when the back light display is flashing.

2.2.2 In case the desired pressure is the same for all tires, a new setup is not necessary.

2.2.3 When in operation, the PREMIUM PLUS displays the tire pressure before inflation, and the partial pressures until the desired one is reached.

2.2.4 For flat tires, proceed in the following manner: set desired pressure through the PLUS and MINUS keys, connect inflating chuck to tire and press FLAT TIRE key until the minimum inflation pressure is reached, i.e., 0.2 bar (3 psi, 20 kPa). From this point on, the equipment will continue to inflate regularly.

2.2.5 Press ARROWS key to check the selected pressure value in another unit.

2.2.6 If after a inflation the inflating chuck is re-connected to the same tire, it is normal that a pressure decrease is visualized on the display, and that is due to the fact that the hose is empty and will, consequently, take some air from the tire. Anyhow, the PREMIUM PLUS will re-inflate the tire with the desired pressure.

3 - SOFTWARE PARAMETERS PROGRAMMING PROCEDURE

3.1 Connect the equipment to electricity. The number 1888 will be shown in the display for 4 seconds. During this time, press and hold the MINUS key and the ARROWS key (conversion units key) together.

3.2 Release the MINUS and the ARROWS key. The word SEL (selection) will be shown in the display.

3.3 Press the same keys together again and after this release them. The word U1 (for the default pressure unit) will be shown in the display.

3.4 Using the MINUS key it is possible to select the default unit : BAR, KPA or PSI.

3.5 Press the ARROWS key. The word U2 (secondary unit) will be shown in the display.

3.6 Using the MINUS key it is possible to select the secondary unit: BAR, KPA, PSI , or – (the "dash sign" means there will be no secondary unit). The secondary unit depends on the main unit that was selected.

3.7 Press the ARROWS key. The display will show the upper range: 10.0 BAR (or 1000 KPA or 145 PSI).

3.8 Using the MINUS key it is possible to select the range: 10.0 BAR or 4.0 BAR (1000 KPA or 400 KPA and 145 PSI or 58 PSI).

3.9 Press the ARROWS key. The word L1 (TIMER ON) will be shown in the display.

3.10 Using the MINUS key it is possible to select the "default pressure timer" enable: L1 (one minute TIMER ON) or L3 (three minutes TIMER ON) or L0 (TIMER OFF). The TIMER ON function resets the desired pressure, which was selected by the user, to the default value 1.8 BAR (180 KPA, 26 PSI), if the equipment is not used during one minute (L1) or three minutes (L3). This is a safety function.

3.11 Press the ARROWS key.

3.12 Press the FLAT TIRE key. The programming procedure is finished. The equipment will be in its normal functioning mode. It is not necessary to turn off the equipment. The selections made (pressure units, pressure range, and default pressure timer) are saved in the flash memory of the equipment.

The possible selections of units are:

BAR conversion to PSI
BAR without conversion
PSI conversion to BAR
PSI conversion to KPA
PSI without conversion
KPA conversion to PSI
KPA without conversion

4 – EQUIPMENT TESTING PROCEDURE

4.1 Connect the equipment to electricity. The number 1888 will be shown in the display for 4 seconds. During this time, press the PLUS key.

4.2 Release this key.

4.3 The equipment is in the Test Mode.

4.4 The display shows the software version number during a small time. After this the display shows continuously the pressure value read in the pressure sensor.

4.5 The PLUS key turn on the inlet solenoid valve, which connects the air compressor to the tire to inflate the tire.

4.6 The MINUS key turn on the outlet solenoid valve, which connects the tire to the atmosphere, to deflate the tire.

4.7 The ARROWS key shows in the display the internal temperature of the equipment in centrigrades. To exit this function is necessary to press this key again.

4.8 The FLAT TIRE key is a zero setting key. This key should be pressed only when the inflator chuck is disconnected from the tire, openned to atmosphere.

4.9 To exit the test mode it is necessary to turn off the equipment from eletricity.

5 - PRESSURE SENSOR CALIBRATION PROCEDURE

5.1 Connect the equipment to the Calibration Apparatus indicated in ANNEXE 1. The Test Vessel and the Standard Manometer must tolerate the maximum pressure value of the air compressor, due safety rasons. The Test Vessel must be a close vessel. A good suggestion is a hose roller with one closed end.

5.2 Open the equipment and remove the Jumper in the control PCB. After this, close the equipment.

5.3 Turn on the equipment in the Power Inlet. The equipment will work in the Pressure Sensor Calibration Mode.

5.4 The Display of the equipment will show the software version number by a short time period and immediately will show the pressure value read in the pressure sensor, with the last calibration.

5.5 Open Test Valve 1 and close Test Valve 2. The equipment will be connected to the Atmosphere.

5.6 Press the ARROWS key. The Display will show the pressure value read in the pressure sensor, without any calibration.

5.7 Press the FLAT TIRE key. The Alarm of the equipment will beep 3 times.

5.8 Close Test Valve 1 and open Test Valve 2. The equipment will be connected to the Test Vessel.

5.9 The PLUS key of the keyboard will turn on the Air Inlet Valve, which connect the Air Compressor to the Test Vessel.

5.10 The MINUS key of the keyboard will turn on the Air Outlet Valve, which connect the Test Vessel to the Atmosphere, by the equipment.

5.11 Using the PLUS and the MINUS keys, adjust the pressure value into the Test Vessel and the Standard Manometer to 8.00 bar (116 psi, 800 kPa).

5.12 Press the FLAT TIRE key. The Alarm of the equipment will beep 3 times again.

5.13 After this, the Display will shows the Temperature value in centigrades. Adjust the temperature using the PLUS and MINUS keys and one Calibrated Thermometer.

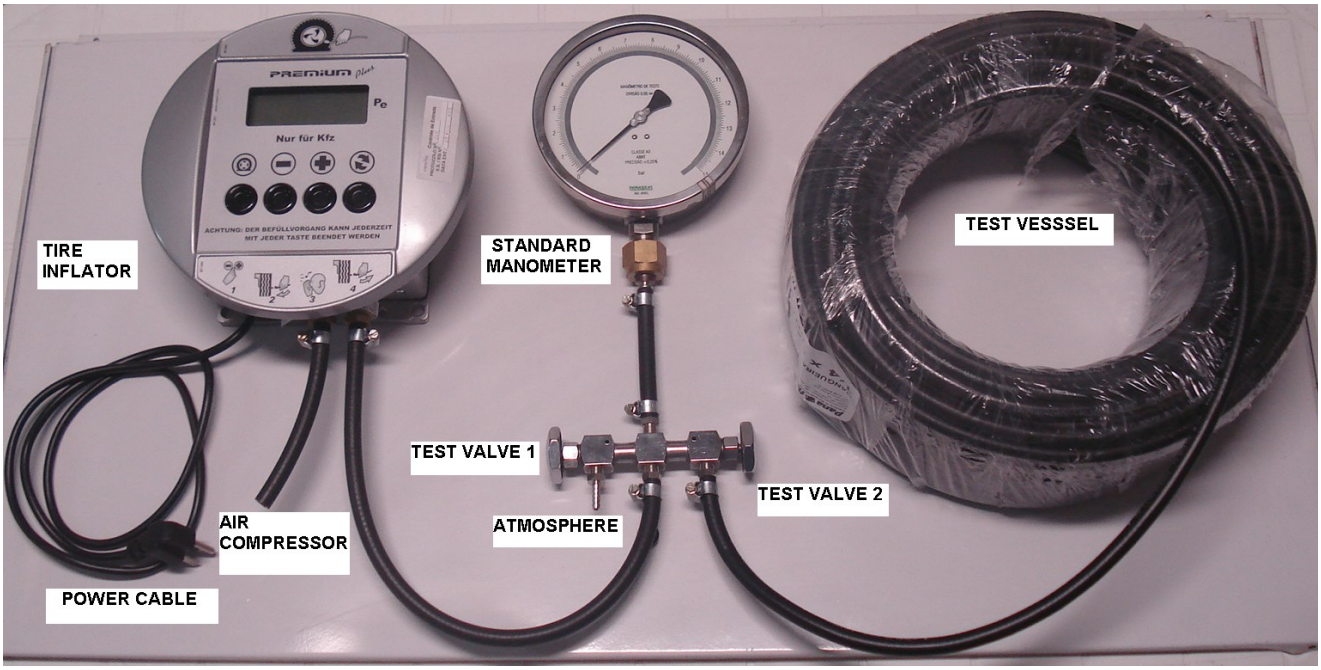
5.14 Press the ARROWS key. The Display will show the pressure value read in the pressure sensor, with the new calibration. Do not press the FLAT TIRE key anymore.

5.15 Verify if the pressure value shown in the display is equal to the pressure value shown in the Calibrated Manometer. Verify this in others pressure read points too.

5.16 The pressure sensor calibration procedure is finished. Turn off the equipment from the Power Inlet. Open the equipment. Replace the Jumper in the control PCB. Close the equipment. Turn on the equipment in the Power Inlet. The equipment will work in the normal mode. Test the normal working of the equipment.

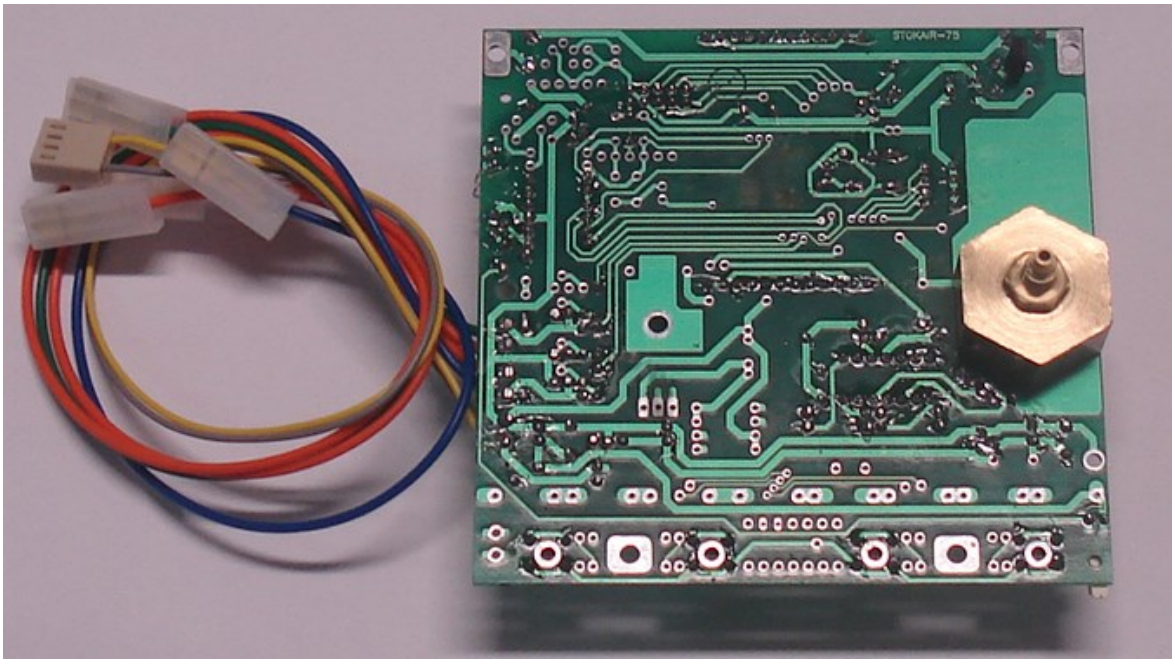
ANNEXE 1

CALIBRATION APPARATUS



JUMPER

CONTROL PCB



6 - ERROR CODES

6.1 ERROR CODE - E00

Symptoms:

The display flashes E00 and the equipment does not operate.

Potential Causes:

The desired pre-set pressure value has been lost from the memory of the equipment.
There has been a power failure or there is a poor contact at the power cable plug of the equipment.

Potential Remedy:

Ensure that the power cable plug is secure and that proper contact is maintained.
Turn the electricity off, wait for five seconds, turn on again and check operation of the equipment.

6.2 ERROR CODE - E02

Symptoms:

The display flashes E02 and the equipment does not operate.

Potential Causes:

The equipment does not inflate a tire to the pre-set pressure and does not read the different values because the pressure sensor is damaged.
One of the solenoid valves does not work properly.
There is a slow flow of air through the valves.
The valve drive circuit is faulty.
The air pressure from the compressor is too low because the isolating stop valve is closed or the pressure in the compressor reservoir is lower than the pre-set pressure in the equipment.

Potential Remedies:

Check that there is sufficient pressure coming from the compressor. If there is no pressure, check that the isolating stop valve is open.
Check that the compressor is switched on and that it is working.
Check that the air supply hose is not blocked.
Check that the 'Inflate and deflate' valves are opening and check the pressure sensor by carrying out the Test Procedure.

6.3 ERROR CODE - E03

Symptoms:

The display flashes E03 and the equipment does not operate.

Potential Causes:

There is airflow without the inflate valve being energized.
There is a faulty valve or hardware drive circuit for the valves.

Potential Remedies:

Change the faulty PCB with a new PCB.
Change the complete valve block.

6.4 ERROR CODE - E05

Symptoms:

The display flashes E05 and the equipment does not operate.

Potential Cause:

The equipment was turned-on at a power inlet with the inflation chuck connected to a tire which has more than 0.2 bar (3 psi, 20 kPa).
The power inlet has a intermittent poor contact with the power cable plug of the equipment.

Potential Remedy:

Disconnect the output air hose from the tire, turn the equipment on (connect to electricity).
Check the power cable plug and the power inlet.

6.5 ERROR CODE - E06

Symptoms:

The display flashes E06 and the equipment does not operate.

Potential Cause:

The power inlet has a voltage value less than 90 VAC .
The power inlet has a intermittent poor contact with the equipment plug.

Potential Remedy:

Check the power inlet.
Check the equipment plug and the equipment power connector assembly.
Make the pressure sensor calibration procedure.

6.6 ERROR CODE - E08

Symptoms:

The display flashes E08 after to press the FLAT TIRE key, and the equipment does not operate.

Potential Cause:

The FLAT TIRE key was kept pressed for more than four seconds.

Potential Remedy:

Check if the FLAT TIRE key is tied or its correspondent micro-switch, located in the PCB, is short-circuited. Replace the entire keyboard or change the faulty PCB with a new PCB.

7 – ROUTINE SERVICE

Before any maintenance service turn off the circuit breaker of the equipment and close down the valve at the air output (see instalation part).

7.1 Do not allow air leakage between hose, chuck and tire for efficient inflation. If leakage occurs then inflation precision fails.

7.2 In case of any air leak at hose or chuck, replace them.

7.3 Inflation chuck replacement: use only an inflation chuck indicated by your local supplier. Low quality chucks may cause air leak and inaccurate inflation. The chuck used in the equipment is "NO AIR RESTRAIN" type. Never use an "air restrain" type of chuck because this will result in inflatior malfunction.

7.4 Hose replacement: Use a 15 mm wrench to release hose connection from the filter body. Block filter body with a 16 mm wrench. Assembly the new hose in its right position according to the marks on the appliance.

7.5 Filter replacement: Use a 16 mm wrench to release the filter body from the equipment. Remove the sintered filter. replace it. To assembly the filters body it is necessary to use a sealing.

7.6 Fuse replacement: the fuse is placed inside the equipment. Only authorized technicians can replace it. In case of replacement, use a 3,15 A time-lag fuse, 5 X 20 mm type. Use only a fuse certified or approved by any recognized national test house.

7.7 Front Panels replacement: the front panels are adhesive. Remove using a small knife and replace them.

7.8 Cleaning: use only water and mild detergent, avoiding contact with chemical products such as gasoline, kerosene and others.