

## 6. Error message

E1	Low Air Pressure or instability of AIR supply	- Check compressor output, or leaks in pipes
E4	Excessive rate of pressure increase – indicating a very small volume	- Check for hose blockages, kinks etc
E5	Unable to reset for Zero drift	-Sensor faulty or blocked hose
E6	Zero Drift limit exceeded	-Refer to authorised repairer
E8	Sensor input under-range	-Refer to authorised repairer
E9	Sensor input over-range	-Refer to authorised repairer
E10	Power supply input voltage low	-Check supply to machine if correct change board
E11	Power supply input voltage high	-Check supply to machine
E12	EEPROM Checksum failed to verify at Power up.	-Refer to authorised repairer
E16	Machine started under pressure	-Sensor fault or Inflator started up with Connector on Tyre if correct change board

## 7. Service/maintenance

There is no requirement to service the following items:

- Pressure Transducer
- Electronic Control Board

If these are faulty they can only be replaced by a competent person, please refer to an Authorised dealer.

### Periodically

- Check hose and OPEN END Tyre Connector. If leaks are evident then replace, small leaks will be evident by constant refilling of the tyre. -Weekly
- Remove Air Input supply and tyre hose from the head. Unscrew Captive sintered filters from filter housings clean or replace. -Annual or when Slow Inflation is evident.

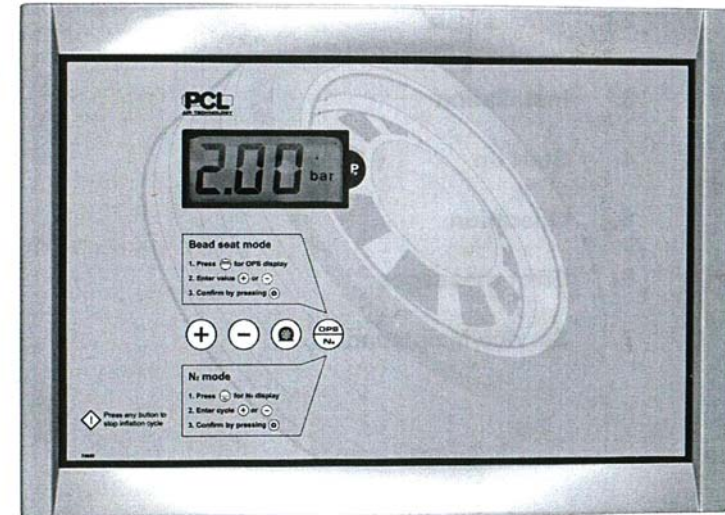


## INSTALLATION, OPERATING & SERVICE MANUAL

### Digital Tyre Inflator

Variants D11S\*\*\*\*/D21S\*\*\*\*/D12S\*\*\*\*

C E 230VAC 50/60hz



Before using this device it is absolutely necessary to read the operating manual. In case of malfunctions and damages of the device caused by insufficient knowledge of the operating manual, the warranty claim will be void.

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### 5.2 Nitrogen inflation and Purge facility N2

The unit will operate with Nitrogen with no problems at all. The Nitrogen must be supplied in place of air. The unit has a Nitrogen Purge facility which will enable the tyre to be filled with a Nitrogen rich mixture (up to 95% Nitrogen).

To set the Nitrogen purge facility, press the OPS/N2 button twice. The display will flash "N2" and "0". Use the +/- buttons to set the number of purges required. The range available is 0 to 5 times. Once set, enter into the programme by pressing the flat tyre button.

Set the pressure required and connect to the tyre. The unit will deflate the tyre to 7 psi and then inflate to pressure with the Nitrogen supply. This will be done as many times as is set. The tyre will then be inflated to the set pressure.

Adjustment:

1. **Press OPS/N2 key** until display indicates N2 and cycle number.
2. **Enter number of Purge cycles (0-5).**
3. Save setting by pressing **Flat tyre Key**
4. **Connect to tyre** - unit will inflate to set value before commencing Deflate /Inflate cycles. (During this phase the display will show Cycle number (N1,N2,N3,N4 or N5) to indicate feedback to user).
5. Purge and correct pressure adjustment is completed by the display showing END and an audible signal.
6. If the purge facility is not needed then make sure that the number of cycles has been confirmed as 0, otherwise the unit will continue to purge the air out of the tyre.

**Note:** It is able to combine the OPS feature with the N2 purge feature to speed the time taken with Tyres to Rim assembly.

**By increasing the number of purge cycles will add considerable time taken** to inflate to reach the target optimum 95% Nitrogen purity especially on truck tyres.

### 5.3 To alter Pressure unit. (Certain Models only).

**Press OPS/N2 until CAL** appears on display, adjust using + or – buttons and save by pressing Flat tyre key.

### 5.4 For Inspection and checking of the Actual tyre pressure (Annual Inspection or Calibration check) the following can be undertaken:

- Simultaneously **depress + and – keys together** (long sound tone will be heard), then **press OK** button 5 times.
- Tyre Pressure will now display pressure resolution **to 0.01 bar**. User may then compare pressure accuracy to Test Apparatus (Note unit will not function as tyre inflator).
- By pressing **any** button, the unit will resume to normal screen operation.

## 4. Start up

After Services connection to the Tyre Inflator.

Ensure the following:

1. For efficient Tyre inflation ensure that the minimum air supply pressure is 10 psi or 0.7 bar above the intended maximum inflation range.
2. At switch on the software level will immediately show the Software level e.g. P3.4 followed by switch on/off all LCD digits.
3. The unit will open for a very short time one deflate pulse before returning to the SET default pressure. Do not connect hose to tyre during start up or Error 5 will show.

## 5. Operation

1. Set required pressure value via +/- button
2. Connect hose to tyre (if using a clip on connector, clip on and turn 140° to ensure a correct seal) - filling process will then start automatically. (Note for long Inflate or deflate pulses the Display will indicate a Virtual Tyre Pressure to indicate user feedback).
3. A long acoustic signal is given when required the target value is reached, the display will also display "End".
4. Remove Connector from Tyre. (The Set value will remain at last value).

**NOTE:** If the unit deflates the tyre after reaching the set pressure and shows N1,N2,N3,N4 or N5 on the screen then the purge function has been activated, please see section 5.2 to deactivate this function.

### Caution!

In case of complete empty tyre press the " **FLAT TYRE** "button. This will enable up to 10 separate air bursts (of increasing duration e.g. <5bar 1-2-3----10sec >5 bar 2-4-6-8-10sec) to enable the Tyre to enable Auto Start (a tyre pressure of 4 psi/0.3 bar)

### Caution!

**PCL Digital is not suitable for the filling of bicycle tyres with standard (Presta Woods) bicycle valves and adapter, or inflatable air beds etc. Over fill of the tyre is possible!  
Only inflate to Schrader type valves (8V1/12V1).**

## 5.1 OPS Over Pressure Setting

The unit can be set to inflate over the pressure required to a maximum of 2.0 bar and then stop and deflate to the set pressure automatically.

To set this press the OPS/N2 button. The message "OPS" and "0" will flash. Use the +/- buttons to set the over pressure required. 0 to 2.0 bar is the range. Once set, press the flat tyre button to confirm the setting into the programme.

**To operate, set the pressure required and connect to the tyre. To start, press the flat tyre button, or the remote control (optional extra).**

The over pressure facility only operates from flat. If the tyre has > 4 PSI / 0.3 bar pressure inside then the unit will simply inflate to the set pressure and stop.

1. Press OPS/N2 button (Display will toggle between OPS and pressure value).
2. Select Over Pressure required by + or - buttons.
3. Press Flat tyre key to accept. (Display will return to Normal Tyre Pressure setting).

## 1. Safety instructions

### 1.1 Symbol and explanation



#### Working safety symbol

This symbol is placed at all working safety instructions of this operating manual, where a danger of life and health of individuals exist. Please follow these instructions and act at these cases very careful. Pass all working safety instructions to other users. Besides the instructions of this operating manual all safety and accident preventive rules which are generally valid must be observed.



#### Caution symbol

This "caution" symbol is placed at passages of this operating manual which have to be observed very careful in order to follow the guidelines, regulations, instructions and the correct operating process as well as to avoid damages to the product and/or other parts of the device.

### 1.2 Working safety instructions

The PCL Digital is designed and built due to the relevant basic health and safety-requirements of the EC guidelines(s).



**This Product can be dangerous if used improperly. Children should not be allowed to use this equipment, as incorrect setting can allow tyre to be over inflated and a subsequent tyre burst/explosion could occur!**

Each person who is involved with erection, start up, maintenance and the operation of the PCL Digital must read and understand the complete operating manual.

**The PCL tyre Inflator is exclusively approved for the dispensing of air. Each use which doesn't follow this purpose as well as modifications to the product will be deemed to be improper use. The manufacturer is not liable for damages caused by improper use, the risk lies solely with the user.**

A proper use of the product also implies the observance of the manufacturer's instructions with regard to installation, start up, operation and maintenance.

All works concerning installation, start-up, adjustment and maintenance must be made by qualified staff. For the operation of this tyre pressure inflator the local safety and accident prevention rules must be observed in all cases.

### 1.3 Requirements to the place of installation

#### Caution!

**Since the PCL Digital Presetair is not explosion-proof, it is not allowed to install this device in areas where explosions are possible. Consideration must be given to the requirements relative to Hazardous Area standards for your region.**

**At the pedestal device, the air and power line has to run out of the ground and from the bottom or the back into the pedestal. At the wall -installed device the air-and power line is passed from the wall and to the bottom of the device.**

## 2. General information

- 2.1 **Manufacturer:** Pneumatic Components Limited, Sheffield, England  
**Type:** PCL Digital – D11S\*\*\*\*/D21S\*\*\*\*/D12S\*\*\*\* Series
- 2.2 **Range of use:** PCL Digital is to be used as an automatically operating tyre pressure controller for the filling of tyres up to max. 145PSI/10.0 BAR- alternative higher pressures available
- 2.3 **Description:** PCL Digital is an automatically operating tyre pressure inflator with a pre-selection of the required value via +/- keys.  
The actual and the required value are indicated on a 3cm Liquid Crystal display.  
The adjusted value will be automatically reached after connection to a tyre.  
An acoustic signal is given when the nominal/required value is reached.
- 2.4 **Technical data:**
- |                                  |                    |   |
|----------------------------------|--------------------|---|
| <b>Height</b>                    | <b>Wall:</b> 300mm | <b>Post:</b> 1490mm   |
| <b>Width:</b>                    | 420mm              | 420mm   |
| <b>Depth:</b>                    | 90mm               | 200mm   |
| <b>Voltage:</b>                  |                    | 230V 50/60Hz  |
| <b>IP rating:</b>                |                    | IP54  |
| <b>Display:</b>                  |                    | 30mm Transflexive   |
| <b>Power during operation:</b>   |                    | max 18VA  |
| <b>Pressure supply:</b>          |                    | max 247 psi 17 bar/1700 kpa   |
| <b>Maximum filling pressure:</b> |                    | 10.0bar /999 kpa /145 psi   |
| <b>Max error:</b>                |                    | <0.08 bar/ 8 kpa (1.16 psi)   |
| <b>Hose length:</b>              |                    | 7.6 metres  |
| <b>Supply Connection:</b>        |                    | Post 3/8" BSP and Wall version 1/4"BSP  |
| <b>Temperature range:</b>        |                    | -20 deg C to +70 deg C  |
| <b>Standards used:</b>           |                    | EC-directive electromagnetic compatibility (89/336/EEC) version 93/31/EEC<br>EN61000-6-3(2001), EN61000-6-2(1999)<br>EC –Low Voltage guidelines (72/23EEC)<br>BS EN 61010-1 |

## 3. Installation

CAUTION  
MUST  
COMPLY

In order to provide a trouble-free operation it is necessary to connect the power supply from the main switchboard with a max 3amp fuse/RCB protection device. **This unit must be grounded.**  
The circuit breaker should be marked as the disconnecting device for the equipment.

The tyre pressure inflator is designed for the operation inside or outside of buildings.

The Compressor producing the air should have necessary water and dirt filtration, to minimise accumulation of debris at the Digital inflator line filter strainer.

The pedestal device has to be installed at ground level and to be tightened to the ground by means of 4 self gripping screws.

The wall-installed device can be secured to the wall by means of 4 screws with a 150mm x 360mm centres.

**It is imperative that the Electrical supply cable to the Inflator has the installed Earth or Ground Wire connected to the Earth/Ground Connection of the Electrical Installation.**

The PCL Digital Tyre Inflator is designed to run with the earth connection installed.

"According to Class 1 – Basic insulation in conjunction with protective Earthing"

The Earth connection allows a safe path for Mains borne Transients and Surges to be safely removed i.e. through local ground disturbances caused by Lightning strikes etc.

### Indoor installations

1. Use 3 pin connecting plugs or 2 pin + Earth with the Earth/Ground wire installed on electrical infrastructure.

### Outdoor Installations

1 The Digital Inflator can be connected to an earth conductor or conducting metal work (metal pipe conduit or sheathing) which has equi-potential bonding to the main Earthing point of Installation.