

PART NUMBER	
SERIAL NUMBER	



D90/91/92/93 Tyre Inflator Quick Start Manual

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.

Safety Guidelines

This manual contains information that is very important to know and understand. This information is provided for safety and to prevent equipment problems. To help recognise this information, observe the following symbols.



DANGER

Danger indicates an imminently hazardous situation which if not avoided WILL result in death or serious injury.



WARNING

Warning indicates a potentially hazardous situation which if not avoided, COULD result in death or serious injury.



CAUTION

Caution indicates a potentially minor or moderate injury.

NOTICE

Notice indicates important information, that if not followed, may cause damage to equipment.

Unpacking

After unpacking the unit, inspect carefully for any damage that may have occurred during transit.



WARNING

Do not operate unit if damaged during shipping, handling or use.

General Safety Information

The operator of this product must take the necessary precautions to prevent the level of danger indicated by these symbols. The operator is required to read and understand this instruction manual and all safety warnings, labels etc.

Any employer allowing the use of this product in their field of work must distribute this instruction manual to all users. The employer must also ensure all users read, understand and follow the instructions as described in the manual, safety warnings, labels, etc.



Purchased airtower may not be representative of the image shown



WARNING

Read and understand all safety warnings and instructions before operating this product. Failure to read and follow all safety warnings may result in serious personnel injury or death. Property damage and/or product damage may also occur if all warnings are not followed.

1. Do not expose the product to flammable gases, vapours or fumes
2. Do not store flammable gases in or near this product
3. Never use flammable or toxic solvents to clean the product or any of the unit's parts
4. Never remove or alter any safety warning labels, tags, etc. located or provided with product.
5. Follow all directions for maintenance.



CAUTION

The use of other than genuine PCL replacement parts may result in reduced equipment performance. Repairs must be performed by authorised repair personnel, otherwise the warranty will be void.

General Specifications

D90 and D91

Max inlet supply: 218 psi / 15 bar / 1500 kPa
Recommended supply : 10 psi / 0.7 bar / 70 kPa
above the max set pressure of Inflator

D92 and D93 optional internal 7 or 10 bar compressor

Max operating pressure : 145 psi / 10 bar / 1000kPa (**10 bar**)
Max operating pressure : 80 psi / 5-50 bar / 550kPa (**7 bar**)
Min operating pressure: 4 psi / 0.3 bar / 30 kPa
Display resolution: 1 psi / 0.1 bar / 10 kPa
Units of measurement: psi / bar / kPa / kg/cm

Electrical Installation

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 must be grounded.

The circuit breaker should be marked as the disconnecting device for the equipment.

Inside installations

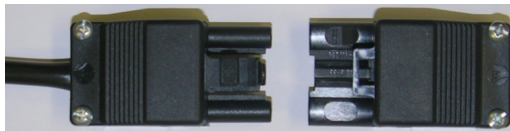
Use 3 pin connecting plugs or 2 pin + Earth with the Earth Ground wire installed on electrical infrastructure. This must be grounded.

Outdoor installations

The unit must be connected to an earth conductor or conducting metal work (metal pipe conduit or sheathing) which has equipotential bonding to the main Earthing point of the installation.

The unit is designed to run with the earth connection installed.

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



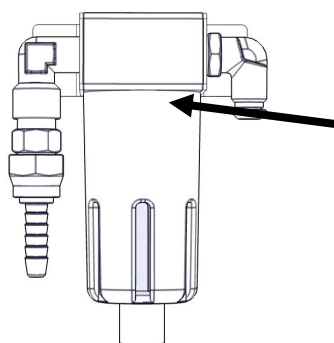
Electrical supply
ST-18 Socket

Air installation

For models D90 and D91 only

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

For efficient tyre inflation, ensure that the air supply is 10 psi, 0.7 bar or 70kPa above the intended maximum inflation range.



Air supply port
R1/4

Water installation (optional)

For models D91 and D93 ensure that 15mm piping is available to connect to the water supply port.



Stop valve
On position



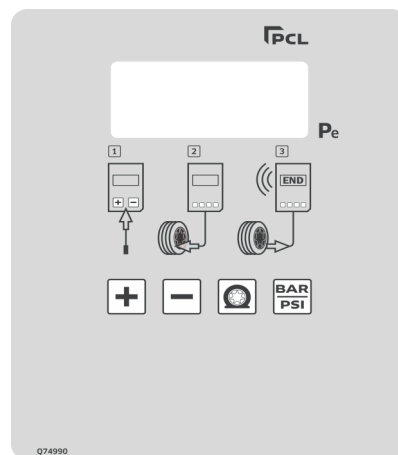
Double check valve
(anti syphon)

Stop valve
Off position

Water supply port
(where fitted) 15mm
tubing/pipe



Control Panel



Key Legend

+ **-** Increase or decrease to set pressure

Start flat tyre inflation

Switch pressure unit

Note:

Key legend above is for standard PCL decal, symbols used may vary by individual part number but functionality remains the same.





Start-up

1. Turn on power supply via the isolator switch.
2. Display will show all LCD digits check
3. Display will show the current Firmware version number e.g. '3.2.1'
4. Display will show Program model variant '300' (psi default) or '302' (bar default)
5. Display will show the application, 'Std'
6. After 10 seconds the display will show 'PCL'
7. The unit will then display the set default pressure

Do not connect the hose to the tyre during start-up or E5 will show

Standard Operation

Inflation and deflation

1. Set desired pressure, by touching either  or 
2. Connect the hose to the tyre.
3. Automatic inflation will commence to the set pressure, periodically stopping to display the pressure of the tyre.
4. If the pressure in the tyre is below 3 psi, 0.2 bar or 20 kPa, the process will not commence until  is touched.
5. When the Set pressure is reached, the buzzer will sound and the display will show 'END' with the final pressure.
6. Remove the hose from tyre.
7. For selection of alternative pressure unit touch .

For adjustments to Inflators parameters please refer to your Distributor or PCL.






WARNING

This unit is not suitable for the filling of bicycle tyres with a standard (Presta, Woods) bicycle valves and adapters. Over fill of the tyre is possible!

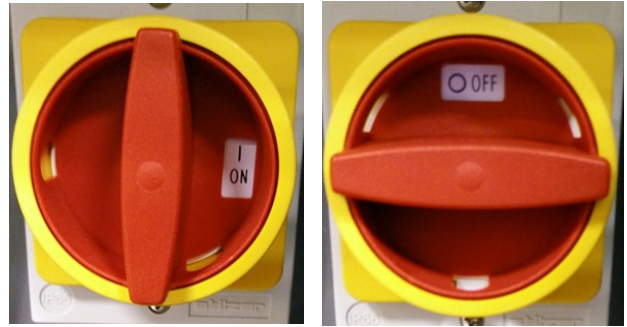
User Inspection mode

It is possible to set the inflator to act as a pressure gauge. The display resolution is changed and can be used to reference the inflator against a calibrated pressure source. The inflator automatic cycle is inhibited.

To access:-

1. Touch  and  together
2. The unit will beep but the display will not change
3. Touch  5 times
(if this is not undertaken within 10 seconds, the Inflator reverts back to normal Inflator mode)
4. Display will show the pressures to the minimum resolution:
psi = 0.1 / Bar = 0.01 / kPa = 1 / kg/cm = 0.01
5. Connect the hose to the tyre and the display will show the pressure in the tyre
6. When complete, touch any button to return to the last set mode.

Isolator switch

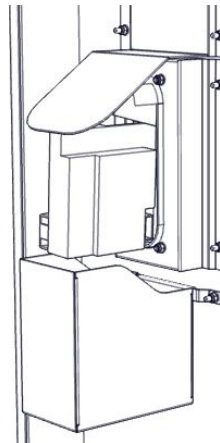


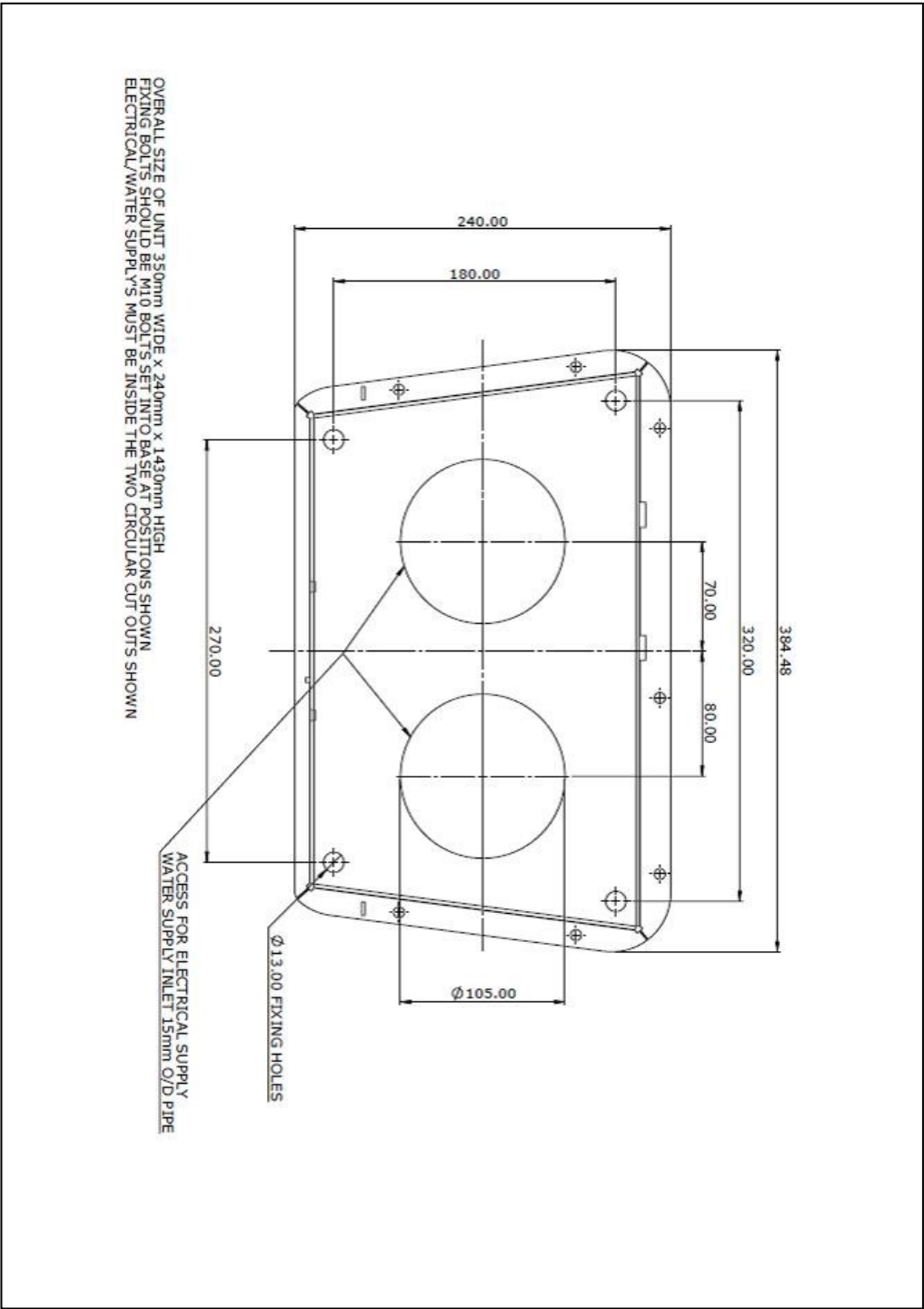
The isolator can be turned off by simply turning the switch clockwise or anti-clockwise.

There is a 10amp fuse installed inside the isolator switch.

Coin mech (Optional)

1. Use the keys provided to open the door.
2. Take the coin mech holder out from underneath the coin mech and empty the contents.
3. Re-attach the holder and lock the doors.





Template for mounting the airtower to the floor.

Service/Maintenance

There is no requirement to service the following items:

1. Pressure Transducer
2. Electric Control Board



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

Periodically

- Check the hose.
- Check the tyre connector.
- Remove air input supply and tyre hose from the head. Unscrew captive sintered filters from filter housings and clean or replace.

Working safety instructions

Since the unit is not explosion-proof, the device should not be installed in areas where explosions are possible. Consideration must be given to the requirements relative to Hazardous Area Standards for your region or country.

The unit is designed and built to the relevant basic health and safety requirements of the EC.



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 can occur!

Each person who is involved with installation, start-up, maintenance and the operation of the unit must read and understand the complete operating manual.

The PCL tyre inflators are exclusively approved for the dispensing of air/N₂. 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.



Proper use of the product also implies the observance of the manufacturers 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.



High Pressure air is stored within the system.



When using N2P mode , locate this system in a well ventilated area. Position the system away from any heat source.



Do not exceed the maximum air input pressure.



Do not operate this product if tired or under the influence of medication, drugs or alcohol.



To avoid the risk of personal injury, especially to the eyes, face or skin DO NOT direct the air/N₂ stream at any person.

Trouble Shooting Guide/Error Messages

Problem	Possible Cause	Solution
No display	No power connected	Switch power on
No inflation process	Tyre is below 3 psi Faulty connector	Press flat tyre button Replace faulty connector
Buzzer does not sound	Buzzer volume has been turned off Buzzer is damaged	Turn buzzer on or Replace buzzer
Inflation process starts but does not complete	Low or no supply pressure Leaks exist	Check supply pressure Confirm leaks do not exist
Supply pressure leaks out input	Input and tyre hoses are incorrectly reversed	Ensure input connection is to offset port, tyre connection is central between input and exhaust
Inflating or deflating is very slow	Check that mesh filters under input and output port fittings are blocked	Clean and or replace mesh filters
Connector will not seal to the tyre stems	Connector worn	Replace connector
Connector leak while not connected to tyres	Connector worn	Replace connector
No power to display head	Isolator fuse blown	Replace 10 amp isolator fuse
E1	Unstable or insufficient supply pressure	Check the supply pressure
E4	Small volume, caused inflator to check pressure > 2bar / 29psi over target pressure	Check hose is not kinked or blocked, ensure a OPEN END connector is installed
E5	Inflator started under pressure i.e. is connected to tyre or a CLOSED END connector is being used	Remove hose from tyre and allow inflator to reset Change connector to OPEN END type
E6	Pressure sensor drift out	New sensor required - Refer to authorised repairer
E8	Pressure sensor disconnected from PCB or faulty	New sensor required - Refer to authorised repairer
E9	Pressure sensor failure - high	New sensor required - Refer to authorised repairer
E10	Under voltage	Check power supply
E11	Over voltage	Check power supply - Refer to authorised repairer
E12	Checksum corrupted	New PCB required - Refer to authorised repairer
E13	Lost or corrupted calibration settings	New PCB required - Refer to authorised repairer
E16	Unit started under pressure	Unit started when connected to a tyre or new sensor required - Refer to authorised repairer
E17	Calibration settings corrupt	Recalibrate unit - Refer to authorised repairer
E18	Runtime error	New PCB required - Refer to authorised repairer
E19	Touch screen error	New PCB required - Refer to authorised repairer
E20 - E23	Startup sequence error(s)	New PCB required - Refer to authorised repairer

PCL LIMITED WARRANTY

PCL warrants the components of each unit to which this Limited Warranty applies against defects in materials and workmanship for a period of twelve (12) months from date of sale (as evidenced by bill of sale or equivalent) or for a period of eighteen (18) months from date of shipment from PCL manufacturing facility (identifiable by the serial number and noted on original bill of lading from the manufacturing facility), whichever period is shorter. During this warranty period and subject to the conditions set forth in this statement, PCL will, at its option, repair or replace component parts that were defective at the time of shipment from PCL manufacturing facility, subject, however, to the following specific EXCLUSIONS: hoses and connections.

Repair or replacement will not extend the warranty period.

Customer must give PCL timely notice of any warranty claim by contacting an authorized PCL service centre. Claims must be accompanied by (1) evidence, by a bill of sale or equivalent, which clearly establishes date of purchase of the unit and (2) the serial number, found on the unit. Customers must properly pack parts in their original or equivalent packaging, prepay shipping charges, and insure the shipment or accept the risk for loss or damage in shipment. Return shipment to customer will be freight collect unless otherwise agreed. For service at a customers location, customer will be charged the then prevailing service rates .

The Limited Warranty applies to PCL manufactured units only. Items listed in the applicable operators manual under routine maintenance are not covered by this or any other warranty. Failure to complete maintenance as stated in any applicable maintenance schedule will void the Limited Warranty. The Limited Warranty is expressly conditioned upon proper and normal use and service of the unit and upon strict compliance by customer with all of PCL instructions and recommendations for installation, operation and maintenance. The Limited Warranty does not apply to the unit or parts that are damaged or become defective due to improper handling, maintenance, storage, use, or operation, and does not cover ordinary wear and tear, corrosion, or erosion.

THE LIMITED WARRANTY SET FORTH IN THIS STATEMENT CONSTITUTES PCL'S SOLE WARRANTY FOR THE UNIT AND THE REMEDIES SET FORTH HEREIN CONSTITUTE CUSTOMERS SOLE REMEDIES FOR BREACH OF WARRANTY. THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, IN FACT OR BY LAW, INCLUDING WITHOUT LIMITING THE GENERALITY OF THE FOREGOING, ANY WARRANTY OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Determination of the suitability of the unit for the use contemplated by the customer is the sole responsibility of the customer. PCL shall not, under any circumstances, be liable in contract, tort or otherwise (including negligence and strict liability) for indirect, special, incidental, or consequential damages, and PCL's total liability shall not exceed the net purchase price for the unit. PCL shall be excused for delay or inability to perform obligations due to events beyond its reasonable control.



CUT HERE

Warranty Registration

Please complete and mail this form to activate warranty
Or visit us at www.pclairtechnology.com

Mail

Warranty Department
PCL
Holbrook Rise
Holbrook Industrial Estate
Sheffield
S20 3GE
United Kingdom

Name _____ Title _____

Company Name _____

Type of Business _____

Address _____

City _____ County _____ Post Code _____

Telephone _____

Part Number _____ Serial No _____

Purchased From _____

Purchase Date _____

Calibration Certificate

Each unit, before release, is checked and calibrated on test equipment that has accuracy traceable to Druck pressure indicator S/N2329290.

The Druck unit is referenced to Certificate 0029346 issued by UKAS Laboratory No. 0221.
This accuracy exceeds BS EN 12645:2014 (MPE = 0.08 bar).

READING	SET PRESSURE			ACTUAL PRESSURE
1	BAR	PSI	KPA	
2	BAR	PSI	KPA	

PART NUMBER	
SERIAL NUMBER	
TESTED BY	
DATE	

Declaration of conformity

- **Note** : The declaration of conformity is valid for units operating at 230V/50Hz.
- 2014/30/EC (EMC directive) confirmed by report No.10654/TR/1
- 2006/95/EC (LOW Voltage Directive)
- National regulations of Germany (PTB), France (LNE), Spain (CEM) and Portugal (IPQ)



Mark McCaughey
Technical Director on behalf of PCL