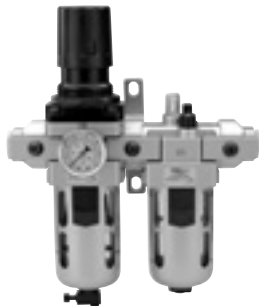


# DRAPER®

## INSTRUCTIONS FOR 1/2" BSP Filter/Regulator/Lubricator (FRL) Unit

Stock No.24333 Part No.ALFRL2

**IMPORTANT:** PLEASE READ THESE INSTRUCTIONS CAREFULLY TO ENSURE THE SAFE AND EFFECTIVE USE OF THIS PRODUCT.



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### GENERAL INFORMATION

These instructions accompanying the product are the original instructions. This document is part of the product, keep it for the life of the product passing it on to any subsequent holder of the product. Read all these instructions before assembling, operating or maintaining this product.

This manual has been compiled by Draper Tools describing the purpose for which the product has been designed, and contains all the necessary information to ensure its correct and safe use. By following all the general safety instructions contained in this manual, it will ensure both product and operator safety, together with longer life of the product itself. All photographs and drawings in this manual are supplied by Draper Tools to help illustrate the operation of the product. Whilst every effort has been made to ensure the accuracy of information contained in this manual, the Draper Tools policy of continuous improvement determines the right to make modifications without prior warning.

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### 2.1 CONTENTS

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# 1. TITLE PAGE

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## **1.1 INTRODUCTION:**

USER MANUAL FOR:

## **½" BSP FILTER/REGULATOR/LUBRICATOR (FRL) UNIT**

Stock no. 24333

Part no. ALFRL2

## **1.2 REVISIONS:**

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Date first published May 2012

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As our user manuals are continually updated, users should make sure that they use the very latest version.

Downloads are available from: <http://www.drapertools.com/b2c/b2cmanuals.pgm>

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## **1.3 UNDERSTANDING THIS MANUALS SAFETY CONTENT:**

**WARNING!** Information that draws attention to the risk of injury or death.

**CAUTION!** Information that draws attention to the risk of damage to the product or surroundings.

## **1.4 COPYRIGHT © NOTICE:**

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## 3. GUARANTEE

### 3.1 GUARANTEE

Draper tools have been carefully tested and inspected before shipment and are guaranteed to be free from defective materials and workmanship.

Should the tool develop a fault, please return the complete tool to your nearest distributor or contact Draper Tools Limited, Chandler's Ford, Eastleigh, Hampshire, SO53 1YF. England. Telephone Sales Desk: (023) 8049 4333 or Product Helpline (023) 8049 4344.

A proof of purchase must be provided with the tool.

If upon inspection it is found that a fault occurring is due to defective materials or workmanship, repairs will be carried out free of charge. This guarantee does not apply to normal wear and tear, nor does it cover any damage caused by misuse, careless or unsafe handling, alterations, accidents, or repairs attempted or made by any personnel other than the authorised Draper warranty repair agents.

Note: If the tool is found not to be within the Terms of Warranty, repair and carriage charges will be quoted and made accordingly.

This guarantee applies in lieu of any other guarantee expressed or implied and variations of its terms are not authorised.

Your Draper guarantee is not effective unless you can produce upon request a dated receipt or invoice to verify your proof of purchase within the guarantee period.

Please note that this guarantee is an additional benefit and does not affect your statutory rights. Draper Tools Limited.

## 4. INTRODUCTION

### 4.1 SCOPE

Designed to clean, dry, lubricate and regulate compressed air.

These instructions are provided to guide the operator in the safe and correct use of the product, and must be stored in a clearly indicated place nearby for easy and rapid consultation.

Please read these instruction before use.

### 4.2 SPECIFICATION

Inlet/Outlet thread.....	½" BSP
Max. inlet pressure.....	10bar (140psi)
Max. temperature.....	60°C
Filtration element.....	10µ
Min. flow rate for lubricator.....	12L/min (0.42CFM)

## 5. HEALTH & SAFETY INFORMATION

### 5.1 GENERAL SAFETY INSTRUCTIONS FOR COMPRESSED AIR

Following Safety instructions should be strictly followed. Failure to do so may result in accidents, equipment malfunctioning, serious personal injury and / or loss of life.

Compressed air is a source of considerable energy. When handling products dealing with compressed air, the following precautions must be taken to prevent accidents.

1. Ensure that compressed air is not blocked or in contact with any part of your body.
2. Before connecting any pneumatic equipment to the compressed air supply, all mounted fittings, piping assemblies and electrical connections should be checked for security. All plastic plugs in the equipment used for protection during shipping should be removed.
3. No piping alterations, removal of fittings, repairing of equipment etc. Should be attempted with air supplies connected. Air and electrical supplies must be disconnected before beginning any adjustment, maintenance or dismantling of equipment.
4. The maximum allowable operating pressures, temperature, flows etc. must be strictly observed. Failure to do so might result in catastrophic failure of equipment, and result in serious personal injury and / or death. Refer to individual catalogues for this information, and any other operating or application limitations.

### 5.2 COMPRESSED AIR SAFETY FOR PNEUMATIC EQUIPMENT

WARNING:

1. **Compatibility of pneumatic equipment**  
Ensuring the compatibility of the procured FRL equipment is the responsibility of the person who designs the Pneumatic system and/ or System specifications. This should be based on specifications or after analysis and / or tests to meet specific requirements.
2. **Repair & Maintenance**  
Assembly, handling, or repair of pneumatic systems should be performed by only trained and experienced operators.
3. **Safety First**  
Do not service machinery / equipment or attempt to remove any component until safety is confirmed.
  - i. Inspection and maintenance of machinery / equipment should only be performed after confirmation that both compressed air and electrical supply have been positively disconnected and all residual compressed air in the system has been completely exhausted to the atmosphere.
4. Contact the manufacturer if equipment is to be used in any of the following conditions:
  - i. Equipment is to be used in conditions beyond the given specifications, or if equipment is to be used outdoors.
  - ii. Equipment is to be used in conjunction with atomic energy, railroad, air navigation, automobiles or related vehicles, medical equipment or safety equipment.

- iii. In applications that adversely effect humans, animals, or property requiring special safety analysis.

### 5.3 PRODUCT SELECTION

WARNING:

Standard Filters, Regulators, Lubricators and Filter- Regulator Combination units should be used in accordance with the specifications mentioned in the specification sheets. While installing and using this equipment, please also follow the respective specification & instruction manual available for each product.

Wherever this symbol  $\Delta$  is shown, it indicates CAUTION! and/or WARNING!

It indicates that operator error can lead to damage and malfunctioning of the pneumatic equipment and can lead to serious personal injury or loss of life.

#### 1. Air Filter and Lubricator

Standard Filters and Lubricators incorporate polycarbonate bowls and / or observation windows. Do not use filters & Lubricators in an environment that will expose the above components to synthetic fluids, organic solvents, corrosive chemicals, cutting lubricants, thread sealant or similar materials.

Make sure that the condensate in periodically drained when using manual drain valves on Filters.

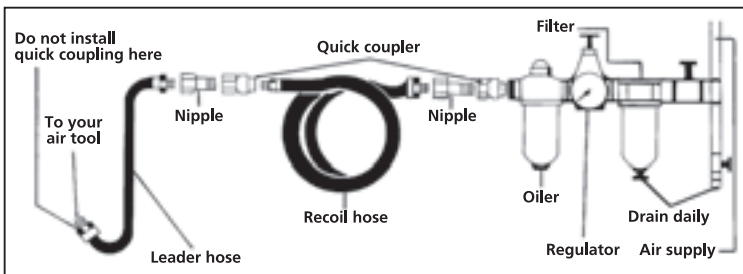
#### 2. Regulator

- a. Safety devices shall be placed to prevent secondary (output) pressure from rising past the set pressure.  
This will ensure that damage to the components on the secondary side will be minimized in the event of a malfunction.
- b. In a standard regulator, when the supply pressure is removed or disconnected, either of the following may happen:
  1. The residual pressure will remain on the secondary side of the regulator.
  2. The pressure on the secondary side of the regulator will exhaust.  
The designer should add components to the circuit to compensate for any of the above conditions.
- c. Regulator operation may be affected when used in Balanced or Secondary sealed circuits. Please consult the manufacturer regarding these applications.

#### 3. Lubricators

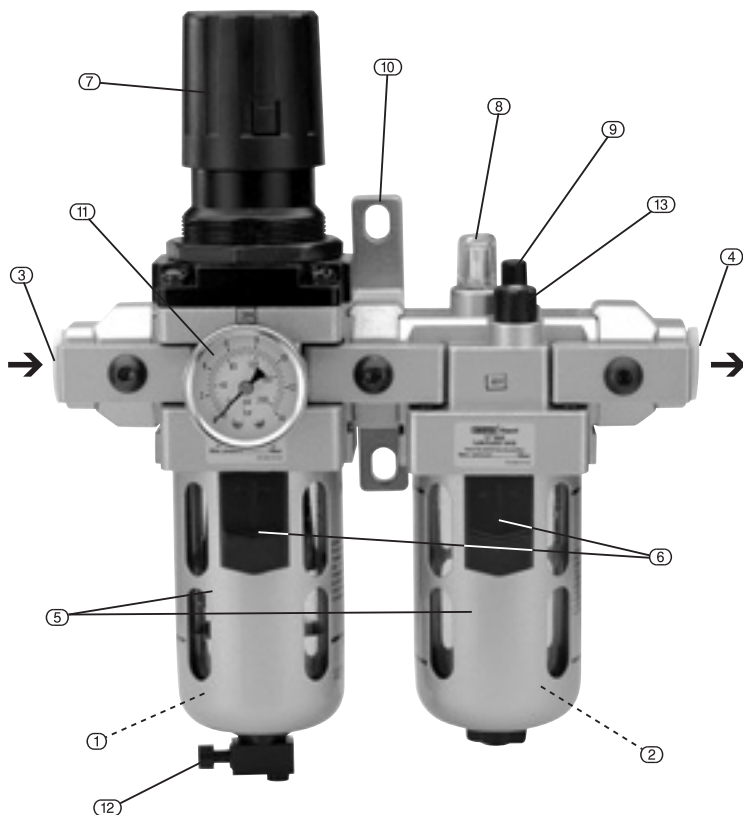
Ensure proper function of the Lubricator. Minimum airflow rate should be ensured for effective lubrication.

## 5.4 RECOMMENDED AIR SUPPLY SET UP



## 6. TECHNICAL DESCRIPTION

### 6.1 IDENTIFICATION



- |                               |                                 |
|-------------------------------|---------------------------------|
| ① Filter regulator unit       | ⑧ Oil flow indicator sight dome |
| ② Lubricator unit             | ⑨ Oil flow rate adjuster        |
| ③ Air inlet                   | ⑩ Wall mounting bracket         |
| ④ Air outlet                  | ⑪ Pressure gauge                |
| ⑤ Metal bowl cover            | ⑫ Condensate release valve      |
| ⑥ Bowl release latch          | ⑬ Oil filler                    |
| ⑦ Pressure regulator adjuster |                                 |

## 7. SETTING THE UNIT

### 7.1 REGULATOR

The output pressure is controlled by ⑦ the pressure regulator adjuster.

Before pressurising the air system for the first time, pull up and rotate the knob anticlockwise to remove any loading on the regulator spring.

Pressurise the system and then rotate ⑦ the pressure regulator adjuster clockwise to set required output pressure, as shown on gauge.

When the required pressure is achieved push in ⑦ the pressure regulator adjuster to prevent inadvertent adjustment.

NOTE: For correct pressure setting always adjust up from a lower pressure. Therefore to reset from 80 to 70psi for example, reduce pressure from 80 to 60psi and then increase to 70psi.

### 7.2 FILTER

The bowl should be drained regularly to prevent an excessive build-up of water/oil. Push in the drain valve at the bottom of the bowl, allow to drain and then release.

### 7.3 LUBRICATOR

Remove the filler plug ⑬ and fill bowl up to max. level, with air tool oil. This can be done with the air line pressurised. With air flowing through the lubricator the oil delivery rate can be adjusted by screw ⑨ whilst watching the drip rate through the sight dome ⑧. The oil delivery rate will automatically increase or decrease in line with the volume of air flow.

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