

### AK4555D.V2 Pump Kit    AK4556D.V2 Hose Reel + Digital meter

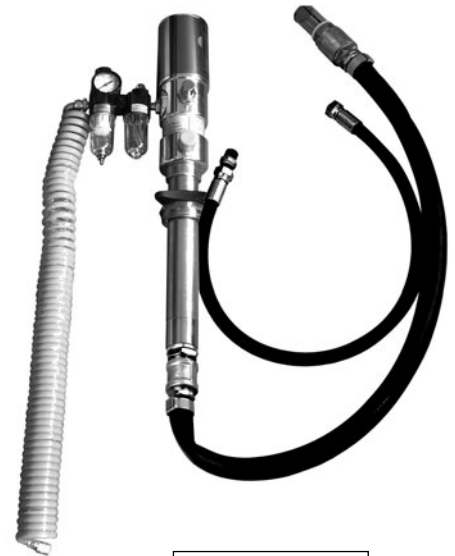
Digital Meter available as **AK4558D.V2**

Thank you for purchasing a Sealey product. Manufactured to a high standard this product will, if used according to these instructions and properly maintained, give you years of trouble free performance.

**IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS & CAUTIONS. USE THE PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY. PLEASE KEEP INSTRUCTIONS SAFE FOR FUTURE USE.**

### 1. SAFETY INSTRUCTIONS

- ✓ Maintain the pump in good condition (use an authorised service agent).
- ✓ Replace or repair damaged parts. Use recommended parts only. Non-authorised parts may be dangerous and will invalidate the warranty.
- ✓ Keep the pump clean for the best and safest performance.
- ✓ Wear appropriate protective clothing i.e. gloves, safety glasses, overalls.
- ✓ Install the pump in an appropriate working area. Keep area clean and tidy, free from unrelated materials and ensure there is adequate lighting.
- ✓ Maintain correct balance and footing. Ensure the floor is not slippery and wear non-slip shoes.
- ✓ Keep children and unauthorised persons away from the working area.
- **WARNING!** Turn off air supply and de-pressurise the output line before removing the pump, dispensing gun or hose reel from any installation. Failure to comply with this instruction may damage the units and will invalidate the warranty.
- ✓ When not in use ensure the air supply is turned off.
- x DO NOT allow unauthorised persons to operate the pump.
- **WARNING!** DO NOT tamper with, or open, the pump unit. To do so will invalidate the warranty.
- x DO NOT point air line at yourself, other persons or animals.
- x DO NOT use the pump to draw off any liquids other than oils.
- **WARNING!** DO NOT allow uncontrolled discharge of fluids thus polluting the environment.
- x DO NOT use the pump for a task it is not designed to perform.
- x DO NOT operate the pump when you are tired or under the influence of alcohol, drugs or intoxicating medication.
- x DO NOT use the pump for pumping flammable or corrosive liquids.



**AK4555D.V2**

### 2. DESCRIPTION & APPLICATION

**2.1.** A complete Oil Installation Pump Station consisting of an oil delivery pump AK4555D.V2, and a retractable hose reel and dispensing gun with digital meter available under part No. AK4556D. The Oil Installation Pump AK4555D.V2 can be purchased separately from the hose reel as can the dispensing gun under part No. AK4558D. The system is intended to be installed in medium sized garage workshops to pump new engine oil from a barrel or tank direct to a vehicle. Where the bulk oil storage is at a distance from the main work area the system can be plumbed into a correctly specified pipe line. The dispensing gun with digital readout enables the operator to dispense the exact amount of oil required. The meter also features an accumulative readout enabling a check to be made on the total amount of oil dispensed during any day / week / month.

### 3. SPECIFICATION

Ratio	3:1
Maximum air pressure	.8 bar (120psi)
Operating air pressure	.6 bar ( 90psi)
Max.output pressure	.18 bar (260psi)
Transient peak pressure	.38 bar

Max. free flow delivery	.14ltr/m
Min. air pressure	.3 bar
Air consumption at 6 bar	.9cfm
Air inlet port	.1/4" BSP
Output port	.1/2" BSP
Suction port	.1" BSP
Max. sound level at 1m	.75dB(A)

### 4. CONTENTS

4.1 Check contents against items in fig.1 and fig.2. Remove items from carton, identify and check pieces for any damage. Contact supplier immediately if you experience a problem.

#### AK4555D.V2 Pump (Fig.1):

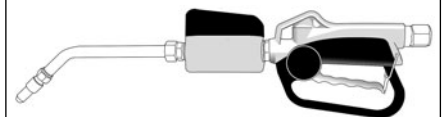
- (A) Pump
- (B) 2" BSP adaptor for tank or drum mounting.
- (C) Inlet tube (flexible 1") with filter and non-return valve.
- (D) Air supply hose (coiled) with 1/4" BSP fittings.
- (E) Outlet hose ( flexible 1/2") with shut off valve (F).
- (G) Air filter/regulator with 1/4" BSP fittings.
- (H) Air lubricator with 1/4" BSP fittings.

#### AK4556D Hose Reel + Gun (Fig.2):

- (I) Retractable (10 mtr) hose reel with 1/2" male inlet fitting.
- (J) Inlet hose (flexible 1/2")
- (K) Shut off valve.
- (L) Drain cock / filter. (female fittings).
- (M) Dispensing gun with digital meter (male 1/2" inlet fitting)

#### AK4558D Digital Gun only (Fig.2):

- (M) Dispensing gun with digital meter (male 1/2" inlet fitting)



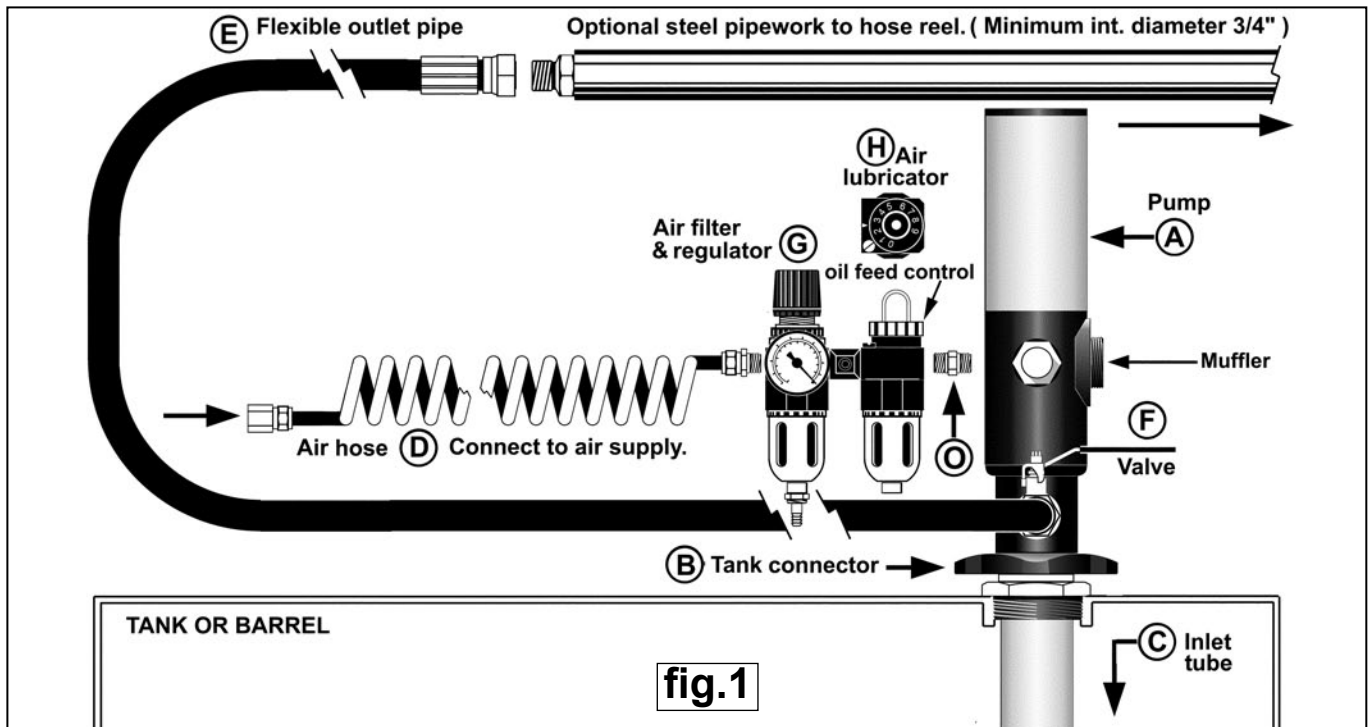


fig.1

## 5. ASSEMBLY AND INSTALLATION

### 5.1 Installing the pump and oil pipe connections. ( See fig.1 )

- 5.1.1 When the oil tank or barrel is to be situated next to the hose reel the flexible outlet hose (E) may be connected directly to the hose reel inlet elbow. ( See P in fig.2 ) However, in larger workshop situations it will probably be necessary to install steel pipework between the pump and reel. This pipework should have a minimum internal diameter of 3/4". No more than two hose reels should be installed on any one line.
- 5.1.2 The use of PTFE tape or a suitable sealant is recommended on all oil related joints.
- 5.1.3 Remove the tank connector (B) from the shank of the pump and screw it into the thread within the tank aperture. Tighten the fitting with a suitable spanner/wrench applied to the metal flats directly underneath the black clamping ring.
- 5.1.4 Identify the 1" flexible suction tube complete with filter and non-return valve (C) and screw the open end into the bottom of the pump (A).
- 5.1.5 Insert the flexible suction tube through the previously fitted tank adaptor . Ensure that the tube lies unknicked within the container as the body of the pump slides into the tank connector. Set the pump at the required height and rotate it to the required orientation, then tighten the black clamping ring.
- 5.1.6 Attach the shut off valve (F) to the pump outlet fitting situated above the tank connector. Attach the flexible outlet hose (E) to the valve. Before tightening the assembly ensure that the valve is orientated for convenient use.
- 5.1.7 The other end of the outlet hose may be attached direct to the hose reel or to an intervening steel pipeline.

### 5.2 Installing the air management system. ( See fig.1 )

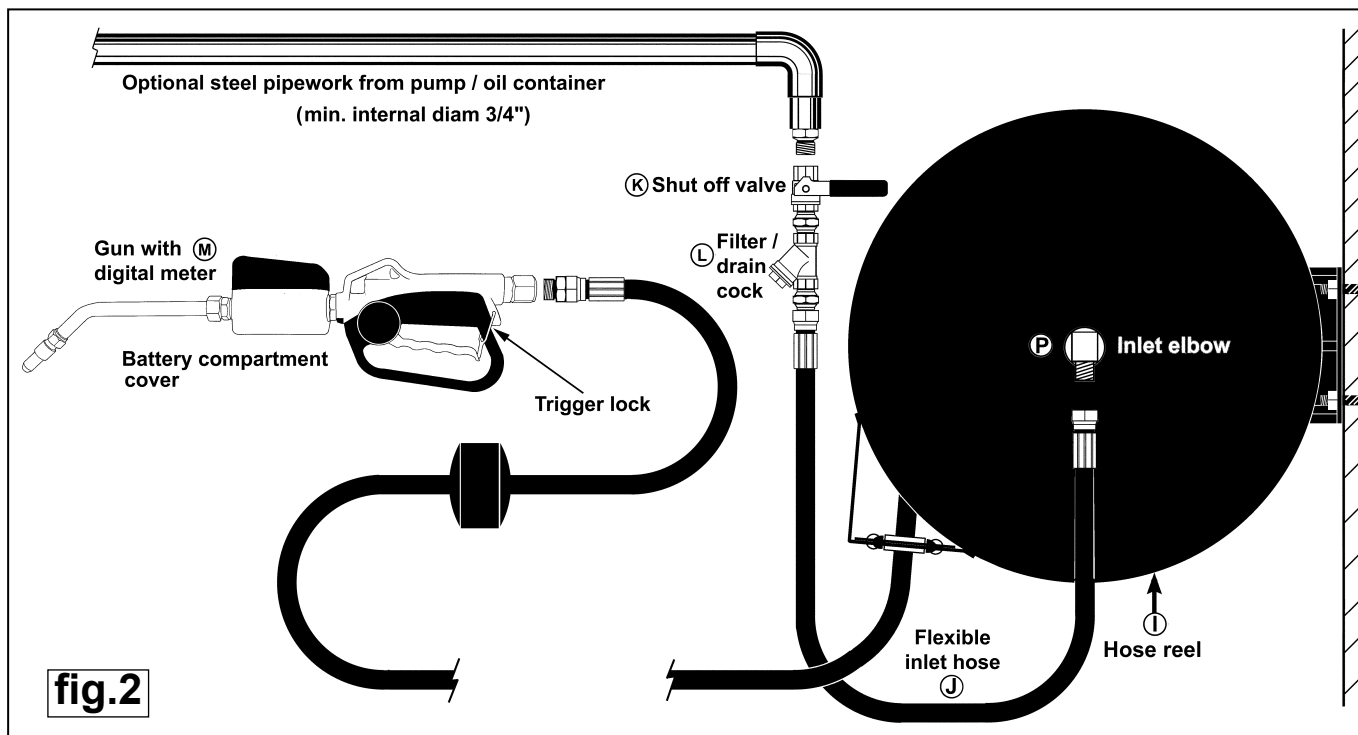
- **WARNING!** Clean new air lines ensuring any metal shavings have been removed before connecting the pump and control unit. Dirt in the inlet lines could damage the unit and may invalidate the warranty.
- 5.2.1 Use PTFE tape or similar on all air connections to ensure leak-free joints.
- 5.2.2 The air management system consists of a filter/regulator (G) and a lubricator (H) which are supplied pre-assembled. Both items have polycarbonate bowls and must not be installed where the bowls may be exposed to solvents and chemicals incompatible with polycarbonate, or where fumes can weaken the bowls.
- 5.2.3 Connect the filter/regulator/lubricator assembly to the pump air inlet using fitting (O). Note the air flow direction arrows on each unit and that lubricator must be between the pump and filter-regulator as shown in Fig.1.
- 5.2.4 Screw the gauge into the port on the front of the filter-regulator. Screw the coiled air hose (F) into filter-regulator inlet port. Secure all connections (but do not over tighten).
- 5.2.5 The bowl of the filter-regulator is fitted with an automatic drain valve the outlet of which may be piped away using suitably sized flexible tube.
- 5.2.6 Remove lubricator oil filler plug and fill with good quality air tool oil (Sealey ATO/500 500ml size or ATO/1000 1L size) checking the maximum level marked on the side of the unit.

### 5.3 Installing the self retracting hose reel and gun. ( See fig.2 )

- 5.3.1 Assess the siting of the hose reel in relation to the work area to ensure that the 10m length of hose will reach to the vehicles work area. Ensure that the wall to which the hose reel will be attached is solid enough to bear the weight of the reel plus the pulling strain that will be exerted when the hose is pulled out. Fix the hose reel in the chosen position using substantial fixings.
- 5.3.2 Where a pipeline has been installed between the pump and reel connect the shut off valve (K) and filter/drain cock (L) to the end of the pipeline as shown in fig.2. Use the flexible inlet hose (J) to connect between the filter/drain cock and the inlet elbow (P) on the reel. Where there is no pipeline connect the pump directly to the reel using the flexible hose from the pump.(see E in fig.1) In this case the filter/drain cock should be installed between the shut off valve on the pump and the flexible hose.
- 5.3.3 Attach the gun (M) with integral digital meter to the end of the reel hose as indicated in fig.2.

### 5.4 Commissioning the system prior to everyday use.

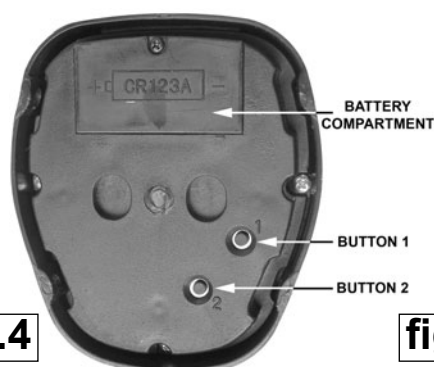
- **WARNING! Do not operate pump dry - suction pipe must be immersed in oil before operating the pump.**  
**Note: When resetting the regulated pressure always start from below the new required pressure and adjust up.**
- 5.4.1 For the pump to operate at maximum efficiency it must push a full stroke of oil. Before operation and with the whole system installed all air must be removed from the oil pumping system starting with the pump itself. Place a small container and /or wad of absorbent material directly below the pump outlet fitting and loosen the fitting by 3/4 of a turn. Before turning on the air supply turn the knob on



the air regulator anticlockwise to reduce the air pressure to zero. Then turn on the air supply and slowly increase the air pressure by turning the knob clockwise until the pump just ticks over. Draw a small amount of oil into the container until all air is expelled. Tighten outlet nut.

- 4.2 Any air left in the oil pumping system can usually be eliminated by holding the gun trigger open and operating the pump until oil emerges free of all air. If a pipeline has been installed between the pump and the reel it may be necessary to bleed the fittings on this line to finally eliminate all air.
- 4.3 Once the oil system has been purged of air the air pressure can be gradually increased to the everyday working pressure of 6bar. Check that there are no air leaks from any of the air hoses or fittings.

## 6. OPERATING INSTRUCTIONS



### 6. Using the dispensing gun with digital meter.

- 6.1. RESET BUTTON. To dispense a specific amount of oil press the 'reset' button to 'zero' the display. As oil is dispensed the display shows the amount of oil dispensed so far as a rolling total. Release the trigger when the display reaches the required amount. If the display is not reset every time oil is dispensed the display will show the accumulative amount since the display was last reset.
- 6.1.2 TOTAL BUTTON. The 'total button' changes the display to show the total amount of oil dispensed from first use. This total cannot be reset. If records are kept the user can check the amount of oil dispensed over a particular period of time i.e. day/week/month/year.
- 6.1.3 SECONDARY BUTTONS. Two buttons (1 & 2) for secondary functions can be found on the back of the display moulding as shown in fig.4. Button1 is used to set the accuracy of the meter and to change the units of measurement. Button 2 reactivates the display should it appear dead. To access these buttons remove the screws from the sides of the display moulding (2 each side) and lift off the display.
- 6.1.4 SETTING ACCURACY. Different temperatures and fluid viscosity will affect the meter accuracy. This can be adjusted to give a figure of plus or minus 0.5%. To check the accuracy dispense one litre of oil into a measuring vessel and check against the 1 litre mark. To see the current correction factor hold TOTAL & RESET both together for 5 seconds. To change the correction factor hold button 1 down for one second. Use the TOTAL button to select the digit to be altered and use the RESET button to step through the numbers 0 to 9 until you reach the one you want. Press TOTAL again to move to the next digit. To exit this mode press 1 again for 1 second.
- 6.1.5 CHANGING THE UNITS OF MEASUREMENT. Hold down button1 for 1 second. Use the TOTAL button to step across the digits in the display until the unit of measurement symbol on the right of the display is flashing. Use the reset button to select one of the four units of measurement. To exit this mode press 1 again for 1 second.

- 6.1.6 **CHANGING THE BATTERY.** To access the battery compartment remove the screws from the sides of the display moulding (2 each side) and lift off the display. Turn the display moulding over and remove the screw which holds the battery compartment lid in place (see fig.4). Prise out the old battery and replace with a new one (see fig.5). Lithium battery reference: CR123A.
- 6.2 To dispense oil.** For safety reasons the system is not designed to fill at high speed. The end of line flow rate will vary depending on a number of factors including length of line, temperature, air pressure and viscosity of oil.
- 6.2.1 Pull the hose from out of the hose reel and place the digital dispensing gun in a convenient place. Set the digital display to zero.
- 6.2.3 Ensure that the shut off valves on the pump and on the hose reel are open.
- 6.2.4 Before turning on the air supply rotate the knob on top of the air regulator anti-clockwise to set an air pressure less than 6bar. Now turn on the air supply and screw the air regulator knob clockwise to gradually work up to a pressure of 6bar. The pump will start to operate at about 2bar and will continue to run until the set pressure is reached within the system.
- 6.2.5 Before commencing to fill the vehicle with oil ensure that you know the capacity of oil required.
- 6.2.6 Remove the oil filler cap and place the dispensing nozzle into the aperture. Squeeze the trigger to commence filling with oil. When the digital display indicates the required amount release the trigger. When a large amount of oil is to be dispensed the trigger can be locked in the on position by swinging the wire trigger lock over the end of the trigger lever. To release the lock squeeze and hold the trigger and swing the wire clip out of the way.
- 6.2.7 When filling is complete replace the oil filler cap.
- 6.2.8 Retract the hose into the reel by giving a sharp pull on the hose close to the reel. Do not allow the retracting hose to drag the dispensing gun over the floor or return unaided.
- 6.2.9 When filling operations are complete turn the air supply off. Keep the system clean, especially the dispensing gun and nozzle.
- NOTE: We recommend that when the pump is not in use for long periods the air supply should be turned off. This will prolong seal life.**

## 7. MAINTENANCE

- WARNING!** Ensure that the pump is disconnected from the air line and that there is no pressure in any part of the system before removing the pump, gun, or hose reel for service or maintenance. **The units should be serviced by an approved Sealey service agent.**

**Note: It is essential that dirt and moisture are kept out of the air supply to the pump. Drain air supply system and clean filters regularly.**

- 7.1. Air line lubricator and water trap** (see fig.1)  
This unit is designed to automatically lubricate the pump via the air supply. The unit must be kept topped up with good quality air tool oil (Sealey reference: ATO/500 - 500ml size or ATO/1000 - 1L size). To adjust the oil flow turn the oil feed control ring on the top of the unit clockwise - set to minimum flow for this application. At regular intervals check that water is draining from filter-regulator, since it is essential that water does not enter the pump.
- 7.2. Cleaning.**  
Clean pump and air units with clean damp cloth. Mild detergents may be used to remove oil. DO NOT use solvents or abrasives and do not get the pump or air units wet.
- 7.4 Oil line filter.** Item (L) Filter / drain cock (see fig.2) contains a small filter which should be cleaned every 3 months to remove any accumulated debris from the oil line. First disconnect the air line and then close the shut off valve (K) next to the filter. Operate the trigger on the dispensing gun to relieve any pressure remaining in the system. Unscrew the cap on the 'Y' piece and remove and clean the filter. Replace filter and cap. Open the shut off valve.

**NOTE: We recommend that when the pump is not in use for long periods the air supply should be turned off. This will prolong seal life.**

## 8. TROUBLESHOOTING

THE PROBLEM	THE CAUSE	THE SOLUTION
1. Air motor does not operate.	1.1. Air pressure is too low. 1.2. Muffler is blocked. 1.3. Internal defect	1.1. Adjust air pressure to above 2 bar/30psi. (5.1). 1.2. Contact service agent. 1.3. Contact service agent.
2. Poor performance	2.1. Muffler is blocked. 2.2. Oil to be pumped is below 15°C. 2.3. Viscosity too high for pump.	2.1. Contact service agent. 2.2. Site tank / barrel in warmer area. 2.3. Check viscosity of oil.
3. The pump continues to operate after the gun trigger has been released.	3.1 There is an oil leak somewhere in the system. 3.2 Valves not closing properly due to wear or the presence of dirt.	3.1 Check and tighten unions. 3.2 Return pump to service agent for replacement of appropriate valve set.
4. Reduction of oil delivery or reduced pressure in the system	4.1 Silencer dirty 4.2 Blocked at some point in the system. 4.3 Ball valve not closing properly due to wear or the presence of dirt.	4.1 Clean or replace silencer element 4.2 Find and clear blockage. Ensure that oil used is clean. 4.3 Return pump to service agent for replacement of ball valve.
5. Air loss through the air exhaust.	5.1 Internal damage	5.1 Return pump to service agent for precise diagnosis and replacement of appropriate parts.
6. Oil leaks through the air exhaust.	6.1 Damaged seals.	6.1 Return pump to service agent for precise diagnosis and replacement of appropriate parts.

**Declaration of Conformity** We, the UK distributor, declare that the products listed below are in conformity with the following standards and directives

**AIR OPERATED OIL INSTALLATION PUMP STATION**  
Models AK455D.V2, AK4556D.V2, AK4558D.V2

98/37/EC Machinery Directive



The construction files for this product are held by the Manufacturer and may be inspected on request by contacting Jack Sealey Ltd.

Signed by Steve Buckle

31st October 2006

For Jack Sealey Ltd. Sole distributor of Sealey Power Products.

**NOTE: It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice.**

**IMPORTANT: No liability is accepted for incorrect use of this equipment. WARRANTY: Guarantee is 12 months from purchase date, proof of which will be required for any claim.**

**INFORMATION: For a copy of our latest catalogue call us on 01284 757525 and leave your full name and address, including postcode.**



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