



INSTRUCTIONS FOR:

# SHOT BLASTING CABINET

Model: **SB973**

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

### 1.1. ELECTRICAL SAFETY.

**ONLY USE THE SUPPLIED TRANSFORMER PLUG FOR CONNECTING UNIT TO THE MAIN ELECTRICAL POWER SUPPLY.**

⚠ **WARNING!** It is the user's responsibility to read, understand and comply with the following electrical instructions:

You must ensure the risk of electric shock is minimised by the installation of appropriate safety devices. An RCCB (Residual Current Circuit Breaker) should be incorporated in the main distribution board. We also recommend that an RCD (Residual Current Device) is used with all electrical products, particularly portable equipment which is plugged into an electrical supply not protected by an RCCB.

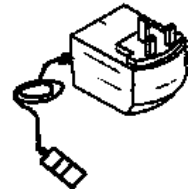
**You must** also read and understand the following instructions concerning electrical safety.

1.1.1. **The Electricity At Work Act 1989** requires all portable electrical appliances, if used on business premises, to be tested by a qualified electrician, using a Portable Appliance Tester (PAT), at least once a year.

1.1.2. **The Health & Safety at Work Act 1974** makes owners of electrical appliances responsible for the safe condition of the appliance, and the safety of the appliance operator. **If in any doubt about electrical safety, contact a qualified electrician.**

#### 1.1.3. You must ensure that you:

- 3 Inspect the transformer plug, cable, adaptor for wear and damage to ensure items are safe before connecting to the mains power supply. If worn or damaged DO NOT use, immediately replace with an appropriate adaptor, or contact a qualified electrician.
- 3 Check cables are always protected against short circuit and overload.
- 3 Important: Check that the voltage marked on the transformer plug is the same as the power supply to be used.
- 3 Uncoil the power cable between the transformer and the powered product.
- 7 DO NOT pull transformer power lead, or pull the transformer plug from the mains socket by the power lead.
- 7 DO NOT use any other type of transformer with this product.
- 7 DO NOT place the power connector into any area of the product except the correct inlet socket.
- 7 DO NOT try to open or dis-assemble the transformer plug.
- 7 DO NOT use the transformer plug to power any other electrical item.
- 7 DO NOT get the transformer wet, or use in wet, damp conditions (for indoor use only).
- ⚠ **WARNING!** NEVER substitute a standard 13Amp 3 pin plug, or any other type of plug, for the transformer plug .



**Cable extension reels.** When a cable extension reel is used it should be fully unwound before connection. A cable reel with an RCD fitted is recommended since any product which is plugged into the cable reel will be protected. The section of the cable on the cable reel is important. We recommend that at least 1.5mm<sup>2</sup> section cable but to be absolutely sure that the capacity of the cable reel is suitable for this product and for others that may be used in the other output sockets, we recommend the use of 2.5mm<sup>2</sup> section cable.

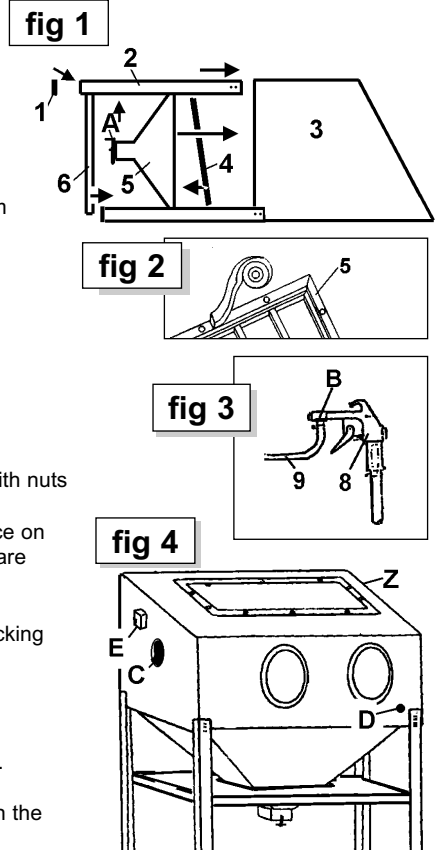
### 1.2 GENERAL SAFETY

- ⚠ **WARNING!** Ensure health & safety, government and local authority regulations relating to the the use of shot blasting are adhered to when using this equipment. Familiarise yourself with cabinet application and limitations, and specific potential hazards peculiar to the cabinet.
- ⚠ **WARNING!** Disconnect cabinet from mains power, and air supply before changing accessories, servicing or performing any maintenance.
- 3 Maintain the cabinet in good condition Replace or repair damaged parts. *Use genuine parts only. Non authorised parts may be dangerous and will invalidate the warranty.*
- 3 Locate cabinet in an adequate working area for its function, keep area clean, tidy and free from unrelated materials. Ensure adequate lighting.
- 3 **IMPORTANT: Use only dry abrasives such as glass bead. We recommend Sealey item B5KG. Never use harsh abrasives such as aluminium oxide, blasting garnet or sand with cabinet. Never use fluids or mix fluids with another media in unit.**
- ⚠ **WARNING!** Always wear approved eye or face and ear protection when operating the cabinet.
- 3 Remove ill fitting clothing. Remove ties, watches, rings, and other loose jewellery, and contain and/ or tie back long hair.
- 3 Keep the side door closed and secured when in use.
- ⚠ **WARNING!** ensure correct air pressure is maintained and not exceeded.  
Always keep blast nozzle directed at the workpiece. DO NOT aim blast at gloves, glove fingers or internal light. Never use outside the unit. Regularly check that the exhaust vent at the back of the cabinet is clear and not blocked and there is space between it and any wall.
- 3 Maintain correct balance and footing. Ensure the floor is clean and free from blasting grit spillage. Wear non slip shoes.
- 3 Keep children and non essential persons away from the working area.
- 7 DO NOT use the cabinet to achieve a task it was not designed to perform.
- 7 DO NOT operate the cabinet if any parts are damaged or missing as this may cause failure or possible personal injury.
- 7 DO NOT operate the cabinet with the a side door open.
- 7 DO NOT use the gun without appropriate nozzles fitted.
- 7 DO NOT stand on the cabinet.
- 7 DO NOT get the cabinet wet or use in damp or wet locations or areas where there is condensation.
- 7 DO NOT operate the cabinet when you are tired, under the influence of alcohol, drugs or intoxicating medication.
- 7 DO NOT leave the cabinet operating whilst unattended.
- 3 The viewing screen is 5mm tempered glass. If glass should break ensure replacement with tempered or safety glass only.
- 3 When not in use disconnect from the electrical mains and the air power supply.

## 2. DESCRIPTION & SPECIFICATIONS

Your shot blasting cabinet is constructed of steel with a replaceable viewing screen and internal illumination. Fitted with a shot blasting gun the unit is suitable for proprietary brands of glass beads only. Excellent for use with a wide variety of workshop and bodyshop cleaning applications. The cabinet requires a minimum 3hp compressor with a **DRY AIR SUPPLY**.

Max Air Pressure . . . . . 60-120PSI      Air Inlet Size . . . . . 1/4"  
 Max CFM . . . . . 15cfm                      Length/Width/Height . . . . . 940x580x1380mm



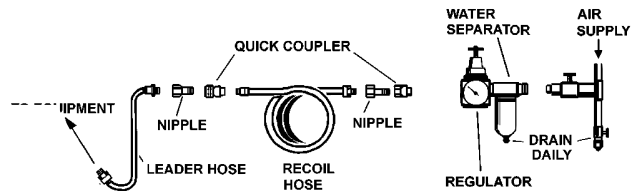
## 3. ASSEMBLY & INSTALLATION

- 3.1. Assembly.** (This cabinet should be assembled by two people).
- 3.1.1. Unpack the product and check contents. Should there be any damaged or missing parts contact your supplier immediately.
  - 3.1.2. Protect the cabinet (fig 1.3) from scratches and lay it on its side.
  - 3.1.3. Push trim moulding (1) on to the bottom of each leg (2).
  - 3.1.4. Attach the four legs (2) to cabinet (3) by passing screws from outside and finger tighten with nuts on the inside of the cabinet.
  - 3.1.5. Carefully peel backing paper from the foam sealing strip and lay the exposed sticky surface on the upper rim of funnel (fig 2.5). Trim as required, and make holes in foam where screws are to go. (In some cases the foam may already be attached to the funnel rim).
  - 3.1.6. Sit the wire mesh shelf (fig 1.4) in the top of funnel (5).
  - 3.1.7. Carefully move funnel (5) up against the underside of cabinet (3), with the funnel outlet locking lever (A) facing to the front.
  - 3.1.8. Ensure sealing strip is intact, and fix cabinet and funnel with screws, and nuts.
  - 3.1.9. Position shelf (6) so that the funnel passes through the centre hole, and align shelf with securing holes in the middle of each leg and fix with screws and nuts.
  - 3.1.10. Carefully stand the cabinet upright. Check that the cabinet is level, then tighten all fixings.
  - 3.1.11. If not already attached, connect sand gun (fig 3.8) to hose (9) at the nozzle outlet end of gun (B).
  - 3.1.12. Push other end of the hose (9) onto the shot media input pipe located inside the cabinet in the neck of the funnel.

### 3.2. Air Supply.

- 3.2.1. You will require an air pressure of between 60 to 120psi, and an air volume of 15cfm max for operating the unit.  
**WARNING! Ensure air supply does not exceed 120PSI. Too high an air pressure and unclean air will shorten the product life due to excessive wear, and may be dangerous causing possible damage and personal injury.**
- 3.2.2. The air supply must be clean and dry. Drain the air supply tank daily. Water in the air line will damage the item being blasted and will invalidate the cleaning tank warranty.
- 3.2.3. Clean the air inlet filter screen weekly. For recommended hook-up, see diagram to right.
- 3.2.4. Line pressure should be increased to compensate for unusually long air hoses (over 8 metres). The *minimum* hose diameter should be 10mm I.D. and fittings must have the same inside dimensions.
- 3.2.5. Keep hose away from heat, oil and sharp edges. Check hoses for wear. Make certain all connections are secure.
- 3.2.6. Use an appropriate coupling suitable for your air system to connect the air supply to the 1/4" inlet air coupling on the gun. Pass the air line through the cabinet inlet hole (fig 4.D).
- 3.2.7. Ensure the air gun (fig 3.8) trigger is off before connecting to the air supply.
- 3.2.8. Check all fitting to ensure there are no leaks, and check that the media supply hose is tightly attached to the underside of the gun.

### HOOK UP



### 3.3. Shot Blast Media.

- 3.3.1. Place the abrasive media into the centre of the cabinet funnel by pouring through the side door until it is **half full**. DO NOT over fill, as excessive amounts of media will impair visibility, create poor blasting performance and could block the air exhaust at the rear of the cabinet.
- 3.3.2. Connect the transformer inlet socket to the electrical inlet on the side of the blast cabinet at point (fig 4.E).
- 3.3.3. If not using an extraction system, remove the cover from air flow outlet at rear right hand side of the cabinet (fig 4.Z) to allow air flow.

### 3.4. Dust Extraction.

The blast cabinet may be fitted to a dust extraction unit. To do so, remove the plastic sealing plate from the side of the cabinet (fig 4.C) and use the same screws to attach the plastic dust outlet. Fit a filter over the dust outlet to ensure that no grit is taken into your extraction unit. Finally, connect the outlet to your extraction unit and use in accordance with the extractors instructions.

## 4. OPERATING INSTRUCTIONS

- WARNING! Ensure you have read, understood and apply safety instructions in chapter 1 before using the unit.**
- 4.1. A ceramic nozzle must be connected to the gun output head. Differing nozzle size will increase or decrease shot blast. The ceramic nozzle size must correspond with the appropriate size air jet nozzle fitted inside the gun head (see size chart below). The small metal nozzle with washer is for the air jet regulation. To fit the nozzle undo the locking screw on the side of the gun and remove the head. Extract the nozzle housed in the head and replace with the required air nozzle. The ceramic blast output nozzle is fixed in the gun head by loosening the head screw inserting the nozzle and tightening the screw. Choose the blast nozzle to correspond with the air jet nozzle according to size as follows:

| Air Jet nozzle size | Ceramic blast output nozzle size |
|---------------------|----------------------------------|
| 5/64"               | 3/16"                            |
| 3/32"               | 13/64"                           |
| 1/8"                | 15/64"                           |
| 5/32"               | 17/64"                           |

- 4.2. Place the workpiece in the centre of the cabinet and ensure you close and latch side door.  
**WARNING! failure to securely close the door could result in damage or personal injury.**
- 4.3. Connect the transformer plug to the mains power supply and switch the internal cabinet light on.  
 Turn the air supply on, (having first adjusted to between 60 and 120psi). If attached, start the dust extraction unit. If no extraction unit remove the air flow cover from rear (fig 4.Z).
- 4.4. Insert your hands into the rubber gloves inside the cabinet making sure that your fingers are correctly positioned and check that you are able to easily move your hand and grasp objects correctly.
- 4.5. Grasp the gun with one hand and point the nozzle at the bottom of the cabinet. Depress the trigger to start the blasting process and check to ensure everything is working correctly. If there are any leaks, stop and fix before use. If no flow is achieved, momentarily cover the gun nozzle in order to force the compressed air back through the grit hose to clear any lodged media.
- 4.6. Hold the work piece with the other glove. Hold and move the workpiece to ensure you keep glove and fingers out of the nozzle blast stream. **DO NOT** aim the blast at your fingers, gloves or internal light.
- 4.7. Aim the nozzle directly at the surface of the workpiece and move the blast media (which looks like steam) continuously over the workpiece in an even and circular motion. To avoid undesirable peening, the flow should not be too hard or concentrated. The work finish may vary from coarse to fine depending on the size of the abrasive media. On delicate workpieces, to avoid unnecessary peening or excessive abrasion, begin the blasting with a lesser airflow.
- 4.8. To open the cabinet to check progress or to access content, release the trigger and lay the gun on the mesh shelf. Remove your gun hand first, and then your other hand. Only then is it safe to open the side door.
- 4.9. When work is complete, disconnect gun from the air line, unplug from the mains electrical supply and switch off dust extraction if fitted.

## 5. MAINTENANCE

- WARNING! Ensure the cabinet is disconnected from the electrical mains and the air supply before attempting any maintenance.**
- 5.1. Keep the blast cabinet clean and dry. Do not use abrasives to clean the unit.
- 5.2. Ensure the blasting media does not become damp. Keep the air supply dry at all times. Dispose of any damp media.
- 5.3. Replace media when it has become excessively dusty, loses its granular or spherical appearance, or debris from workpieces mixes in with it. This is usually noticed when media from the nozzle looks like a smoke cloud rather than steam.
- 5.4. To change media, place an appropriate container under funnel outlet and turn the locking lever to open. Wear a dust mask to perform this task.
- 5.5. If used, regularly check that the exhaust vent at the back of the cabinet (fig 4.Z) is clear and not blocked.  
 If you use an extraction unit change the filters according to use.
- 5.6. Regularly check gun blast nozzle to ensure it does not become blocked with media. Immediately replace worn or damaged nozzles.
- 5.7. If abrasive pick-up hose becomes blocked, re-power the unit, ensure the doors are correctly closed. Cover the gun tip and force air back through the hose to clear any media.
- 5.8. The transparent screen has a replaceable covering on the underside of the lid. If visibility is reduced, replace the protective cover.
- 5.9. Check that the gloves are in good condition. If damaged replace immediately.
- 5.10. To replace internal cabinet light.  
 Un-clip light unit from each end clamp. Remove each plastic end (these are a tight fit). Disconnect the electrical terminals and gently slip the rubber retaining rings from the tube releasing it from the back reflector. Use a dust free light tube not greater than 70 Watts.

## 6. TROUBLESHOOTING

| PROBLEM                                 | POSSIBLE CAUSE  | REMEDY   |
|---|---|--|
| Excessive dust in the cabinet           | 1 Exhaust vent or air flow is blocked.<br>2 Abrasive media is worn.<br>3 Too much abrasive media in the cabinet<br>4 loose air line or fittings | 1 Clean rear vent and keep vent away from any wall.<br>2 Replace the media<br>3 Remove excess media<br>4 Check and tighten all air fittings. |
| Uneven blasting                         | 1 Too much abrasive media in cabinet.<br>2 Moisture inside cabinet  | 1 Remove excess media.<br>2 Check air line for moisture.   |
| inadequate speed or efficiency of blast | 1 Abrasive media is worn<br>2 Pressure is too low   | 1 Replace the media<br>2 Check there are no supply blockages or leaks.<br>Control valve is fully open. Increase pressure.                    |
| Static electricity                      | Dry weather conditions  | Leave the workpiece to stand for a while   |
| Blast pattern too wide or ineffective   | Nozzle blocked or worn  | Check, unblock or replace nozzle   |

### Declaration of Conformity



We, the sole importer into the UK, declare that the product listed below is in conformity with the following EEC standards and directives  
 The construction file for this product is held by the Manufacturer and may be inspected on request by contacting Jack Sealey Ltd

Signed by Mark Sweetman

1st July 2000

For Jack Sealey Ltd. Sole importer into the UK of Sealey Quality Machinery

#### SHOT BLASTING CABINET

**Model: BS973** 89/336/EEC Low Voltage Directive (S.I. 1989/728). 89/336/EEC EMC Directive (S.I. 1992/3073). 93/68/EEC CE Marking Directive. EN50081-1 Generic emission standard. EN55014 Limits and methods of measurement of radio disturbances characteristics of household electrical appliances, portable tools and similar electrical apparatus.

**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 product. **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 and promotions call us on 01284 757525 and leave your full name and address, including postcode.



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