

# Winstone MK5 Control Unit

This high quality control unit ensures accurate application of weed killers, insecticides and fungicides. It is designed for use with any agricultural spray pump. It will operate at low pressure for boom spraying or crop spraying, and at high pressure for spraying gorse, blackberry, etc. It is also ideal for cattle and sheep spraying.

To get maximum trouble-free use from your control unit please read these important installation and operating instructions.



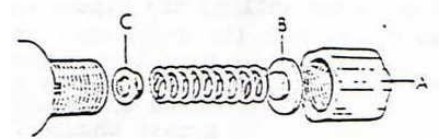
N.B. Pressure Gauge Scale: The pressure gauge should not be operated at more than 2/3rds of maximum dial scale. If pressure gauge is marked from 0-4000 kpa (0-580psi) then operating pressure should not exceed 0-3000 kpa (0-426psi). With a gauge marked 0-2500 kpa (0-350psi) then operating pressure should not exceed 1660 kpa (233psi).

Important - SPRING SELECTION: There is one additional spring supplied with the CONTROL UNIT.

This plated spring should be used when doing low pressure boom spraying i.e. under 700 kpa (100psi). If spraying at pressures above 700 kpa the correct high pressure spring is already fitted to your control unit.

## INSTALLATION INSTRUCTIONS

1. Mount the control unit in a position handy to the drivers seat.
2. Connect the short length of (1 ½ metres) of high pressure hose from the pump Outlet to the connection marked 'inlet' on the control unit.
3. If boom spraying at below 7 bar (100 psi) fit the low pressure spring as follows: unscrew adjusting screw (A), remove the high pressure spring and replace it with the low pressure spring. Be sure to get the spring locator (B) and spring pad (C) in the right way round.



## OPERATION

1. Push up Control Unit handle into the unload and off position
2. Start pump and when operating at correct speed push Control Unit handle down into pressure 'on' position
3. Set desired pressure by turning the pressure adjustment knob
4. To stop spray flow, push up handle to the unload and off position. When control unit is in off and 'unload' position all spray mixture is returned to the spray tank.

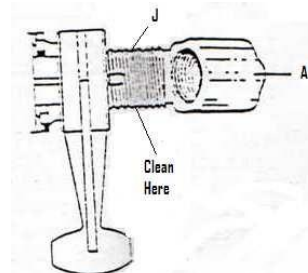
## IMPORTANT - NOTICE ON STARTING PROCEDURE

Always ensure that the Control Unit handle is in the 'unload' position before starting the pump. A lot of pumps will not prime themselves if this recommendation is not followed. If the pump is stopped during spraying operations, the control unit handle should be put into the 'unload' position, so that the pressure will be relieved.

If these simple rules are not followed damage could result to the spray kit.

## MAINTENANCE

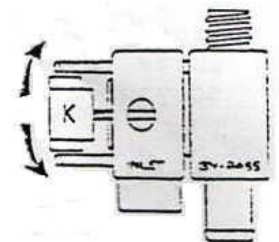
1. It is recommended that after spraying, your equipment is flushed out with clean water. This procedure is most important when using corrosive liquids.
2. The outside thread in the bypass chamber (J) can get clogged with chemical and dirt, especially if wettable powders are being used. If this threaded section becomes clogged, it will be very difficult to screw the
3. adjusting screw knob (A) in or out. In fact, you could possibly strip the thread. To rectify, clean the threaded section of the bypass chamber with a wire brush - see diagram.
4. If it is necessary to replace parts in the control unit, disassemble the control unit as follows:



a/ Remove the outlet chamber by unscrewing all 4 nuts

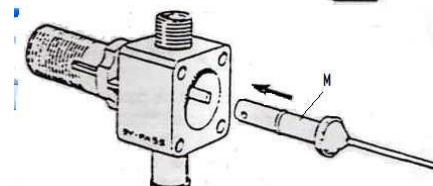
b/ Unscrew shut off valve (K) from bypass valve assembly spindle - see diagram

c/ From here, dismantle control unit completely.

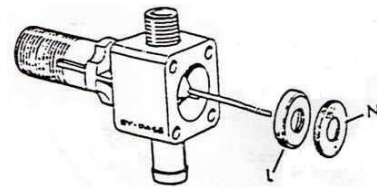


Replace worn or damaged parts and assemble as outlined below according To diagrams and instructions.

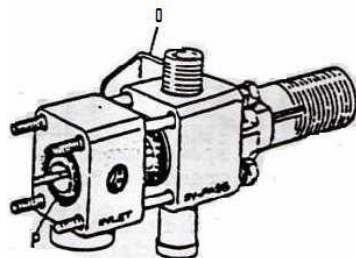
Step 1 Grease valve assembly (M) around o-ring. Then start assembling by pass Chamber by pushing in valve assembly until it seats hard against end wall of the bypass chamber.



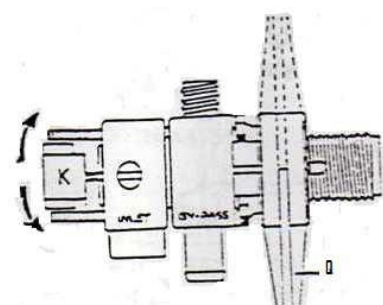
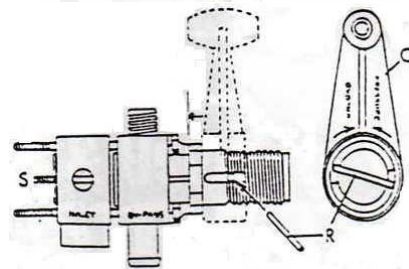
Step 2 Take brass bypass seat (L) and push firmly (with cupped edge facing bypass chamber) so that it seats firmly on the three shoulders within the bypass chamber. Then place rubber sealing washer (N) on top of brass seat.



Step 3 Take the 2 bolts and washers and couple the inlet chamber to bypass chamber on the pressure gauge side. On the other side, do likewise but mount the metal bracket (O) without washers. The rubber sealing washer (P) on the inlet chamber must be on the opposite side to the bypass chamber.



Step 4 Slide the on/off unloader lever (Q) into position on bypass chamber. (The words 'onload' and 'pressure' on lever, should face away from control unit) Slip unloader retaining pin R through valve assembly and position it on outside of lever as shown on diagram.



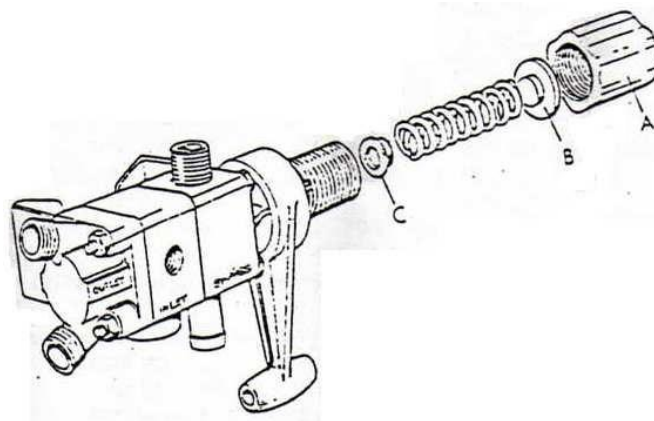
Step 5 Pull on/off unloader lever (Q) down into 'on' or 'pressure' position. Push main valve assembly spindle (S) out as far as possible and then screw the threaded shut-off valve (K) on to spindle until it is about 1/4" from the rubber sealing washer on inlet chamber.

The shut off valve (K) will seal the outlets of the control unit only if the shut off valve is correctly positioned on spindle. If the shut off valve is correctly positioned, you should be able to push the on/off unloader lever (Q) firmly upwards into the off position. It should click firmly onto the notch and remain in the upward position when off.

If the handle cannot be pushed into off position, the shut off valve (K) should be unscrewed by a 1/2 turn or two, thereby allowing the lever to reach the off position. Likewise if the lever is loose it will probably not bind firmly on the off notch. The shut off valve should therefore be screwed up until the lever remains firmly in the off position.

Step 6 Fit outlet chamber next to inlet chamber of control unit.

- A Make sure that 'shut-off valve' is positioned to slide into the channels provided in the outlet chamber.
- B Place other mounting plate on same side of control unit as corresponding plate and bolt together with nuts provided (Do not use washers).
- C With remaining washers and nuts, bolt control unit together firmly.



Step 7 A Insert the larger plastic seat (spring pad B) into the adjusting screw (A) and push the pad to end wall of the adjusting screw knob.

B Take the small plastic seat (spring locator C) and insert in end of spring.

C Insert spring together with small plastic seat into bypass chamber and screw on adjusting knob (A) as in diagram.

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