



model **500**

## SLIDER MOTOR

Serial No. 20001 onwards

## INSTALLATION

&

## SERVICE INSTRUCTIONS



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## 1. POWER SUPPLY

The SLIC SLIDER MOTOR is designed to operate on a 12 - 16 volt smoothed dc. supply. To calculate ampere rating of power supply, multiply the number of SLIC motors by 0.6 and add 10 then use the larger available rating.

eg. : 24 motors.  $24 \times 0.6 = 14.4 + 10 = 24$ . Use 25 or 30 amp. supply.

**IMPORTANT NOTE:** Power requirements, performance and quietness will be affected by the voltage regulator, overload capacity and ripple content of the power supply. A good quality organ rectifier is recommended.

## 2. INITIAL MOTOR SETTING

The slider motor is factory set in the "OFF" position assuming the sliders to be pulled "ON" ie. with the drive linkage fully extended towards the end mounting flanges. To reverse the direction for a "PUSH ON" action, remove screw (a) (Fig 1 ) and ext. s.p. washer. Slide the drive linkage out of the runners, turn the Drive Arm through 180 degrees, re-fit the drive linkage assembly, screw and s.p. washer and tighten. Ensure that screw (b) is central in the registration adjustment slot (see Figure 2).

## 3. ADJUSTMENT LENGTH OF DRAW

Before mounting the motor, measure the distance the Drive Channel overhangs the back end of the Drive Arm. When these two ends are flush, the draw will be 32 mm. For every 1mm of overhang the travel will be reduced by 2mm. Eg. suppose the required slider travel is 20mm. Then, with the drive linkage fully extended, loosen screw (a) (fig. 3) and pull the linkage back on the Drive Arm until the channel overhangs by 6mm. ( $32 - 2 \times 6 = 20$ ) Tighten screw (a) making sure the channel does not move.

**IMPORTANT:** Blocks or limit pegs should never be fitted to the slider or windchest. Accurate control of travel will be determined by the motor setting.

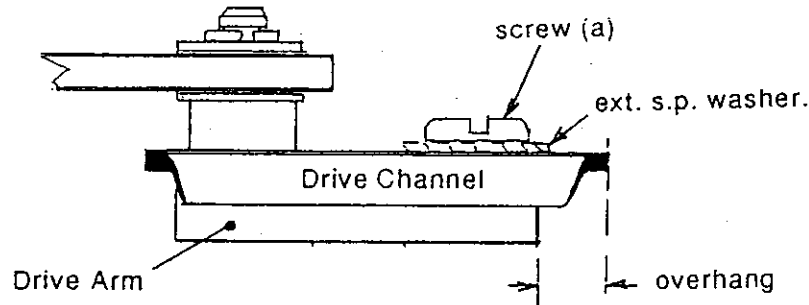


Figure 1

## 4. MOUNTING

- Mark the spacing of the motors on the end of the windchest, allowing not less than 68mm ( $2 \frac{5}{8}$ ") from the centre to centre, keeping each unit as near the centre of its respective slider as possible. Transfer centre lines of motors to ends of sliders.
- Mark a horizontal line on the end of the windchest 38mm ( $1 \frac{1}{2}$ ") below the underside of the sliders.
- Drill holes 5mm ( $\frac{3}{16}$ ") diam. X 18mm ( $\frac{3}{4}$ ") deep where the marks intersect.
- Attach Mounting Plate with  $1 \frac{1}{2}$ " x  $\frac{1}{4}$ " hex. head screw and double helix washer, keeping indented corners towards the windchest and two small holes uppermost. Tighten screw until washer is fully compressed, then slacken off half a turn. Check that mounting plate is vertical and drive the two pins provided through holes, leaving approximately 2mm clearance between pin head and back of mounting plate.
- Mark three horizontal lines on the end of windchest at distances of 150, 170 and 190 mm ( $6$ ",  $6 \frac{3}{4}$ " and  $7 \frac{1}{2}$ ") below underside of sliders and mount positive, negative and stop terminal lugs. For convenience (+) and (-) lugs may be screwed through flat metal buss strips.

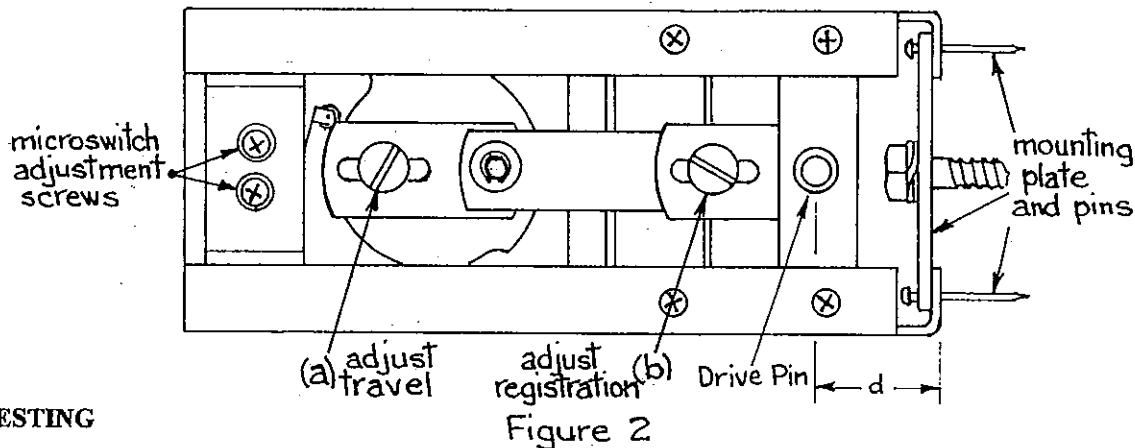
## 5. DRILLING SLIDER

**Warning :** Do not attempt to adjust or turn the motor by hand whilst Negative wire is connected. Serious injury may be sustained. After unplugging black wire, unplug Control Card to facilitate turning Drive Arm.

With motor in "ON" position (Push or Pull), measure distance (d) between drive pin and end Mounting Flanges of motor. With slider and windchest pipe holes aligned, mark the same distance (d) on the sliders from mounting surface of the motors on the windchest. Mark intersection of this distance with motor centre lines ( see 4a above) and drill a 6.35 ( $1/4$ " ) hole through slider. ( This hole must be a neat sliding fit on the drive pin.) Cut off end of slider 15mm. beyond hole.

## 6. FITTING THE MOTOR

Slacken the mounting plate screw a further half a turn. Then, using a screw driver to lift the bottom edge of the mounting plate, slide the motor upwards until the two pins ( see 4d above) engage the slots in the end flanges. If the foregoing procedures have been followed correctly, the drive pin should enter the hole in the slider and the mounting screw may now be firmly tightened with an 11mm ( $7/16$ " ) A.F. spanner. Replace the control card.



## 7. TESTING

Plug in red (+) and black (-) wires ( In 'push on' installations, motor will immediately move to 'OFF' position). Operation may now be checked by touching green wire (stop) to the red (+) terminal. With the stop in the 'ON' position, accurate registration of the slider may be adjusted by screw (b) (fig. 2). Check that all screws are firmly tightened and that control card is fully plugged in. Plug in green wire and test from console.

### Overload Protector

SLIC Slider Motors are fitted with overload protection to prevent overheating. In the event of a slider becoming jammed, the power will be cut off for as long as the stop is left 'on' or until the slider has completed its movement.

### 24 Volt DC Operation

The SLIC Slider Motor may be used with 24 volt organ systems. It is necessary however to provide a separate 12 volt dc. power supply for the + and - buss lines to the motors. The green stop wire should be connected to the stop output from the 24 volt organ circuit. Negative supply of the 12 and 24 volt power supplies need to be connected together.

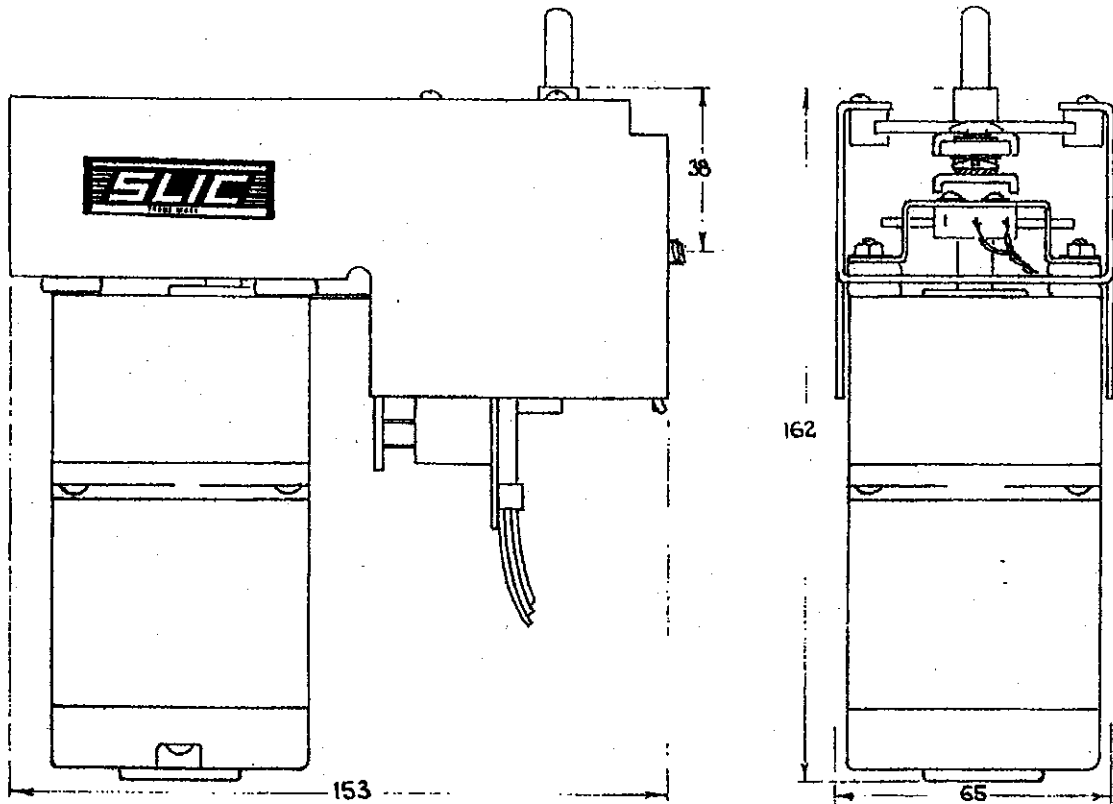
## 8. SERVICE

High quality materials and components have been used exclusively in this product. Provided that it is used within the specified ratings and is not subject to damage or environmental conditions involving excessive dirt or moisture etc., it will give many years of reliable service without attention. There are no user serviceable parts within the motor and gearbox. Drive pin travel is controlled by an external microswitch and a cam fixed under the drive arm. For proper function, the microswitch must turn on and off within the lift range of the cam. Oversize mounting holes on the microswitch bracket allow easy adjustment.

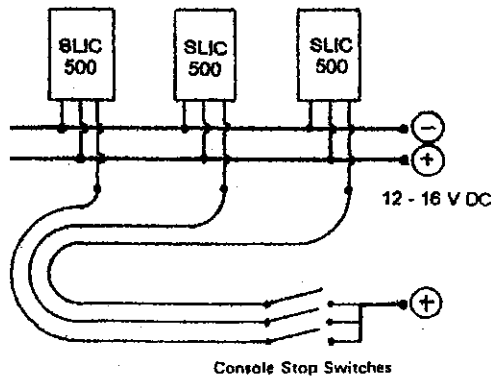
**In case of fault, check as follows:**

### Failure to operate or Running - on

- check that leads are correctly connected.
- check supply voltage and try operating by touching green wire on + or - terminals.
- check that organ slider is not jammed.
- try interchanging control card with one from working unit.



WIRING DIAGRAM



### WARRANTY

*This product has been thoroughly tested and inspected before leaving out factory and is guaranteed for a period of 12 months from the date of purchase against defective workmanship and/or materials providing such defect is not due to misuse or negligence or interference by others and that the defect is first reported to the distributor from whom the actuator was purchased and provided that is returned adequately packed and freight paid. No other warranty written or verbal is given or implied.*