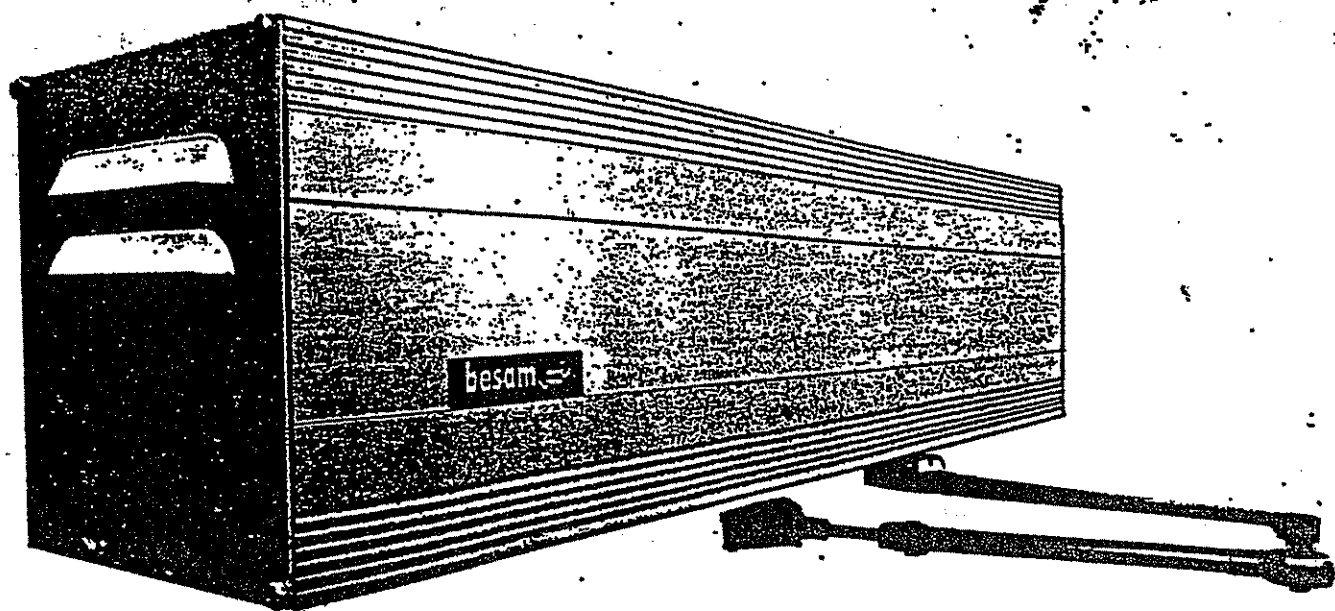


INSTALLATION MANUAL
S-012

besam 

Automatic Swing door operator

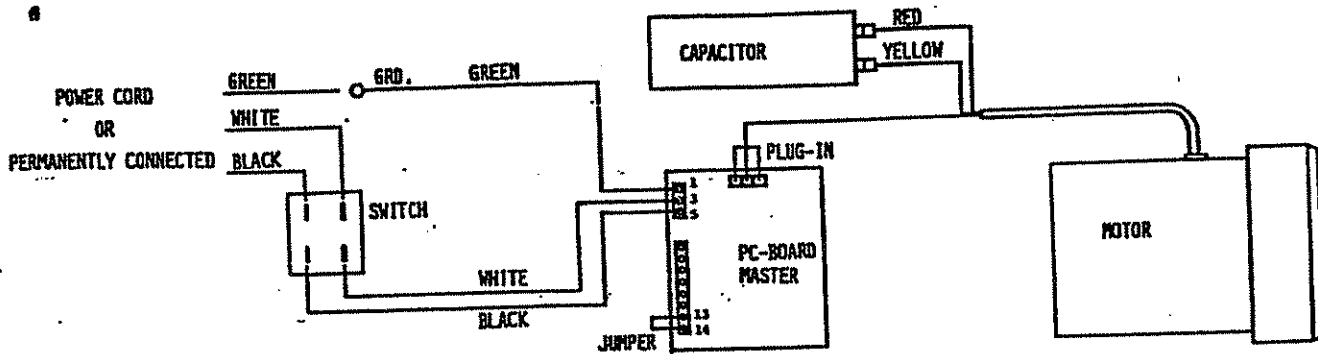
Econo-Swing™



Electrical Wiring

9. The operator is provided with a 3 foot long grounded power cord and all internal wiring is pre-wired as diagram inside operator shows.

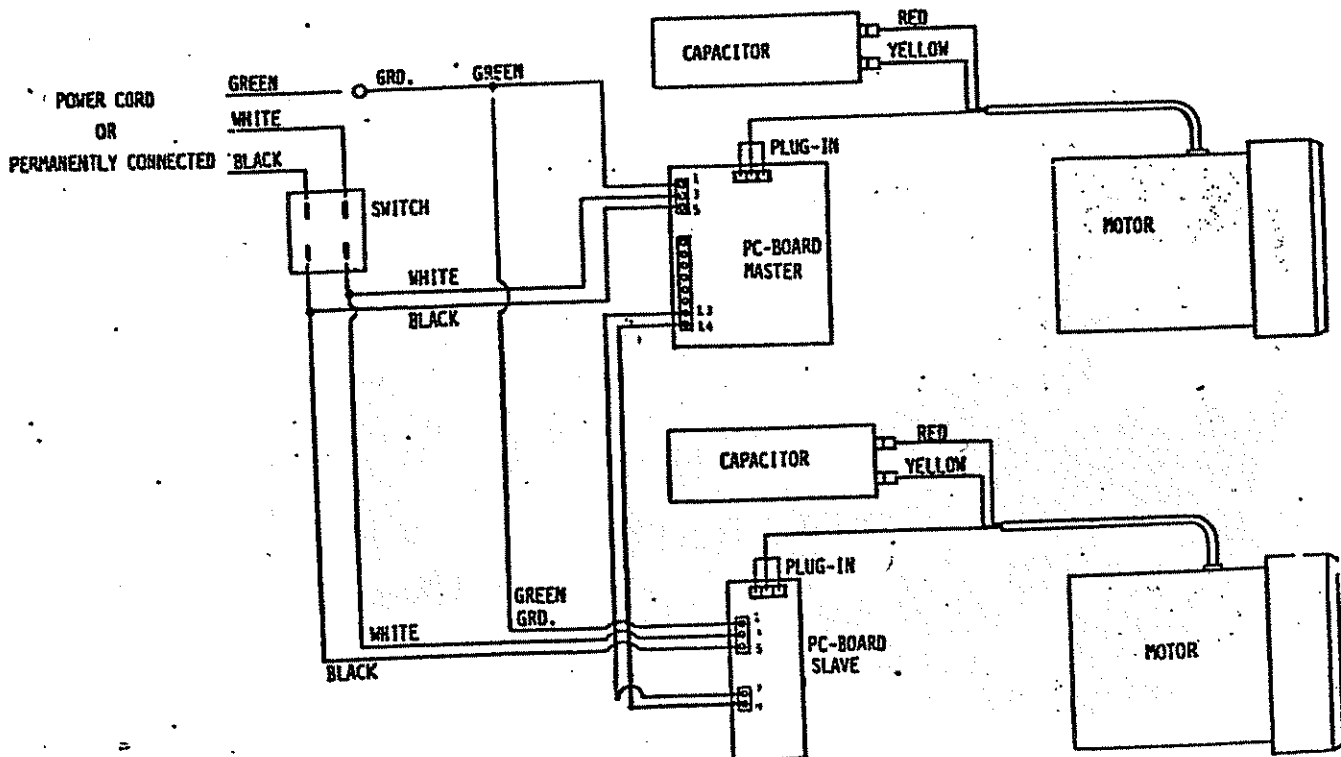
Figure 19



If the operator is to be permanently connected - follow the diagram. Be sure to have the hot leg (phase) connected to connection No. 5 on the master PC Board, ESV-S-US. Otherwise, the internal fuse will not protect the PC Board.

20. For a dual operator with simultaneous control - one master PC Board type ESV-S-US and one SLAVE PC Board type ESV-SLAVE-US are required. See diagram for wiring of simultaneous control dual operators.

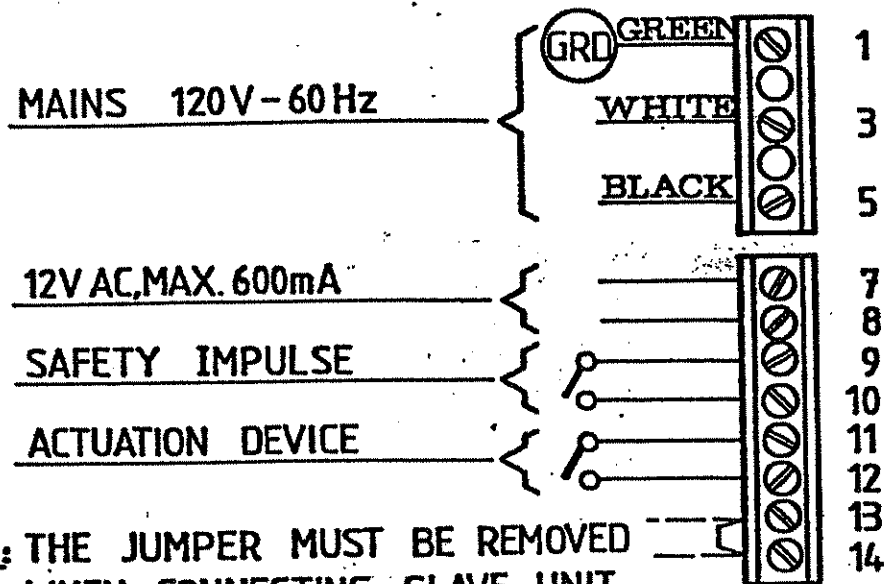
Figure 20



21. External wiring is done after the operator is installed and should follow the diagram shown:

Figure 21

ESV-S-US



This wiring is required for each single operator which is to be separately controlled.

If dual operators with simultaneous control are installed, the same diagram is to be followed.

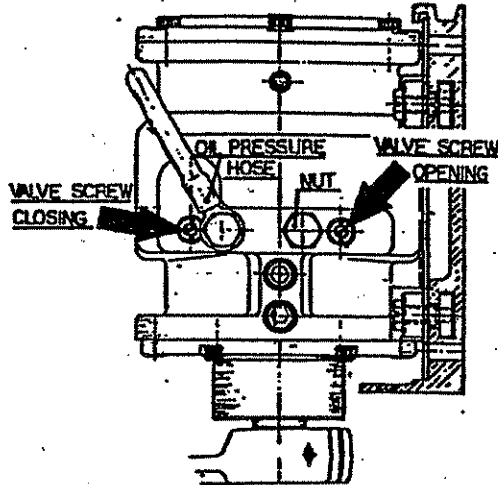
22. Venting the Oil Servo Unit

Loosen the vent screw on the top of the oil servo unit 3-4 full turns, to ensure that the hydraulic system is properly vented.

Adjustments

- Switch the power on. The operator should now open and close one full cycle. This is the first indication that the operator is correctly wired.
- On the side of the oil servo unit two valve screws will be found. These control the opening and closing speeds.

Figure 24



Opening Speed

The opening speed is factory-preset at a normal speed. If necessary, this speed can be adjusted. By turning the opening valve screw (the valve closest to the nut) full turns clockwise, the speed will decrease. Turning the valve screw full turns counter-clockwise, the opening speed will increase.

A "creep-speed" occurs in the last stage of the opening cycle braking the door and allowing it to proceed slowly to a fully open position. The creep-speed is also adjustable by turning the valve screw a partial revolution in one direction or the other. First, find the valve position at which the door brakes abruptly and then using this position as a reference point, carefully adjust until a gentle braking performance is obtained.

Closing Speed

The same procedure as above, except the closing valve screw is used (the valve screw closest to the oil pressure hose): Allow the closing speed to be as slow as acceptable to obtain the maximum safety.

Time Delay

The potentiometer on the master PC Board provides a time delay on the hold open time for 0 to 30 seconds. The last given impulse will start the time delay. If a safety device is connected, the time delay begins when the safety function is no longer active. Adjust to required time delay.

The operator is now completely installed and adjusted. Let it operate a few times, assuring everything is correct and no re-adjustments are necessary.

5. Mount the cover to the operator, ensuring that the rubber extrusion on the top of the backplate and the foam filler ring is around the motor fan guard in proper position.

Fasten the slotted screws on the underside of the cover to complete the cover assembly.

SPARE PART LIST

The items are referring to picture 1 to 5:

ITEM	DESCRIPTION	TYPE OF OIL SERVO UNIT	PART NO	REMARKS
	Electric Motor	All Types	172192	Includes 30 UF Capacitor
1.1	Capacitor 25 UF	All Types	713257	For motors with black plastic fan cover
	30 UF	All Types	713329	For motors with yellow steel fan cover
	Coupling complete	All Types	170910	
	Oil Pump complete	All Types	171792	
	Oil Hose, pressure side	OVE OHE POHE POVE	171242 171243 171273 171274	
4.1	Union Screw set, pressure side	All Types	171658	Set of 4
4.2	Copper washer set, pressure side	All Types	171808	Set of 8
	Oil Hose, return side	OVE, POHE OHE, POVE	171244 171245	
5.1	Union screw set, return side	All Types	171891	Set of 4
	Aluminum washer set, return side	All Types	171892	Set of 8
	Hydraulic oil servo unit	OHE OVE POHE POVE	171235 171236 171269 171268	
	Valve spring set	All Types	171885	
6.4	Valve screw, opening	All Types	170369	Complete
6.3	Valve screw, closing	All Types	171368	Complete
	O-ring set for valve screw	All Types	171661	Set of 6
6.5	Valve screw bushing	All Types	171666	Set of 5
6.6	Screw set for top plate	All Types	171886	Set of 6
6.7	O-ring for top plate	All Types	171887	Set of 5
6.8	Torsion spring, normal	OHE, POHE OVE, POVE OHE, POHE OVE, POVE	170707 170706 170705 170704	
	heavy duty			
9	Radial oil seal	All Types	171888	Set of 5
	Arm System, regular installation			
	Arm System, Z-type, clear	OVE, OHE	172023	Complete
	bronze	OVE, OHE	172057	Complete
	straight type, clear	OVE, OHE	171263	Complete
	bronze	OVE, OHE	172054	Complete
7.1	Arm, Z-type	OVE, OHE	172022	State color
	straight type	OVE, OHE	170927	State color
7.2	Telescopic bar system	OVE, OHE	171898	State color
7.21	Telescopic bar	OVE, OHE	170772	In overlength 2 ft.
7.22	Door Attachment	OVE, OHE	170936	State color
7.23	Washer set	OVE, OHE	171894	Set of 4

ITEM	DESCRIPTION	TYPE OF OIL SERVO UNIT	PART NO	REMARKS
8	<u>Arm System, parallel installation</u> Arm System ST-V, right hand, clear bronze Arm System ST-H, left hand, clear bronze	POVE POVE POHE POHE	171851 172069 171852 172070	Complete Complete Complete Complete
8.1	Main arm for ST-V for ST-H	POVE POHE	171855 171856	State color State color
8.2	Slide arm for ST-V and ST-H Slide arm in overlength for reveal more than 1 9/16"	POVE, POHE POVE, POHE	171858 171859	State color State color
8.21	Roller for slide arm	POVE, POHE	171867	
8.3	Drive arm for ST-V and ST-H	POVE, POHE	171857	State color
8.4	Bar for ST-V and ST-H	POVE, POHE	171863	State color
9	Slide Track (butt hinge), clear bronze	POVE, POHE POVE, POHE	171868 172071	
10	Slide Track (center pivot with panic breakaway), right hand, clear right hand, bronze left hand, clear left hand, bronze	POVE POVE POHE POHE	171869 172072 171870 172073	
10.1	Ball catch complete	POVE, POHE	171877	
10.2	Spring	POVE, POHE	171882	
11	Hydraulic Oil	All Types	732039	
12	PC-Board ESV-S-US	All Types	620101	
/	ESV-SLAVE-US	All Types	620103	
13	Fuse set 7 Amp 3/4 Amp	All Types All Types	651611 651608	Set of 5 Set of 5