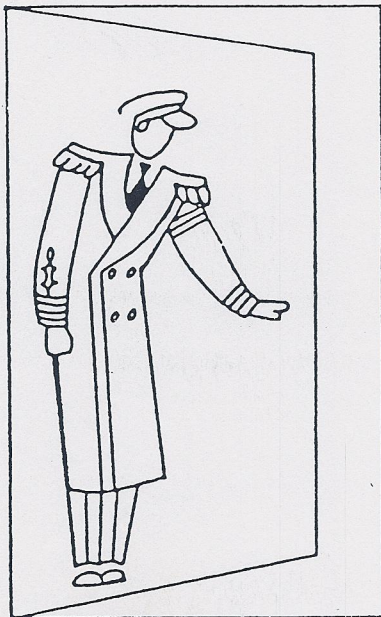


# ***DOR-O-MATIC®***



INSTRUCTIONS FOR INSTALLING AND USING THE

70586-900 MICRO COMPUTER CONTROL BOX

AND THE

72188-900 MOTOR GEAR BOX

## ***DOR-O-MATIC***

*Division of Republic Industries, Inc.*

7350 West Wilson Avenue, Chicago, Illinois 60656 (312) 867-7400

England: Dor-O-Matic G.B. Ltd., Thames House, Wellington Square, London S.E. 18.

Canada: Dor-O-Matic of Canada, Toronto

BOOKLET NO.  
70586-984  
PRICE: \$15.00

Printed In U. S. A.

9-86

INSTRUCTIONS FOR INSTALLING THE #70586-900 CONTROL BOX AND THE  
#72188-900 MOTOR AND GEAR BOX IN EXISTING ASTRO SLIDE UNITS.

A. GENERAL:

The #70586-900 Control Box utilizes the latest development of the micro computer for controlling automatic doors. It completely eliminates the need for any limit switches, timing belts or position adjustments, after installation. The #70586-900 is designed to work only with the #72188-900 motor and gear box which has the door position sensor built into it to supply information to the micro computer for positive control of the door.

This system can be used on any size single door opening from 15" to 8' and any size bi-parting pair door openings from 30" to 16'. For large door sizes consult factory for special ordering information.

B. INSTALLATION INSTRUCTIONS:

1. Turn off all power to operator.
2. Disconnect chain and cable assembly and remove old control box, rotary switch assembly and motor and gear box.

MOTOR

3. Install new #72188-900 motor and gear box exactly the same as the old #70120-900 being extra careful not to damage the wire cables.

CONTROL BOX

4. WARNING:

All activating controls should be installed, hooked up and checked out for operation before connecting to the two brown leads of the control box.

Be sure that the two wires that connect to the control box do not have any power of any kind coming out of those two leads as this will permanently damage the #70586-900 control box. These activating contacts must be dry contacts.

5. Connect the red and black wires to the circuit breaker with the  $\frac{1}{4}$ " fast on terminals, then complete installation of the #70586-900 control box in the same manner as the old box.
6. Connect all remaining molex connectors. All connectors are polarized so they cannot be connected wrong. (See Fig. 3)
7. Re-connect chain and cable assembly and move door to closed position.
8. Set open speed switch to MED. and closing to SLOW.

9. Turn on power and activate door. Door should open fully and close at a very slow rate of speed. During the slow operation the computer is automatically setting the opening, back check, closing and latching positions. After the door has completed the slow cycle it automatically switches to the normal operation speed.
10. Set time delay as desired.
11. Door should now be operating normally with no further adjustment required.
12. If door is stalled during the opening cycle it will time out and re-close at normal closing speed. It can then be re-activated.

C. ADJUSTABLE AUTOMATIC REVERSING:

The #70586-900 features an adjustable automatic reversing control which permits proper door operation with various weights and sizes of doors. If the door is stalled during the closing cycle it will automatically reverse and re-open fully, then re-close at a very slow rate of speed looking for the obstruction. The door will continue to re-cycle at a slow speed until obstruction is removed.

NOTE: The closing force of the door must not exceed 30 lbs. to comply with the UL and ANSI safety codes.

D. SAFETY BEAM SHUT OFF:

There is a new set of wires (brown & white) with a small molex connector attached to the control box. These wires are wired to the safety beam receivers and automatically turn off the safety beam after the door is fully closed so that the door cannot be re-opened by breaking the safety beam. As soon as the door is re-activated the safety beam turns on and functions normally until door again closes fully.

The brown and white wires on the control box are connected directly to the brown and white wires from the safety beam as shown in Fig. #3.

E. EASY MORNING ENTRY AND NIGHT EXIT:

If sliding door is to be used for morning opening and night time closing of the store it is recommended that only the activating circuit to the control box be turned "off" by means of the on/off hold open switch and that the 115V. AC power to the control box be left on at all times. If the power is left on to the control box the door can be unlocked with a key and then pushed open a few inches manually at which point the door will automatically open the rest of the way under normal opening power and speed. The owner can then enter or leave the store and the door will close automatically. When the on/off hold open switch is turned to the "on" position, the door will open normally by carpets, motion detector, etc.

F. ENERGY-WISE:

1. The energy-wise switch is an optional feature that permits the total door opening size to be reduced if desired.
2. When the energy-wise switch is activated the door will only open to 75% of the normal door opening position. If the traffic flow through the door increases to a point where the door cannot get completely closed before the next opening it will gradually and automatically increase the size of the opening to the full 100% position to allow for the increased traffic flow. When the traffic flow decreases the door will automatically return to the 75% opening size.

G. SAFETY SENSING:

Automatic sensing if the door is locked or blocked during opening cycle. (If the door is actuated when it is locked, it will time out and not continue to try to open. If the door is blocked during the opening cycle, it will time out and return to the closed position. In either case no reset button will be tripped which would require a manual reset.)

---

Note:

There is no open stop adjustment. Door drives full open against rubber stop, unless the energy-wise switch is installed.

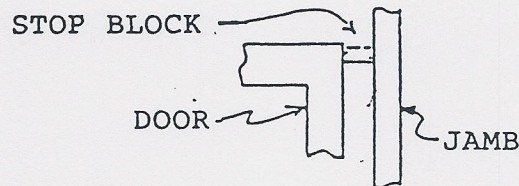


FIG. 1

---

Note:

There is no Closed Door shut off adjustment. Door drives full closed against other door or jamb.

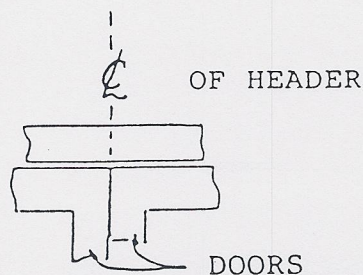


FIG. 2

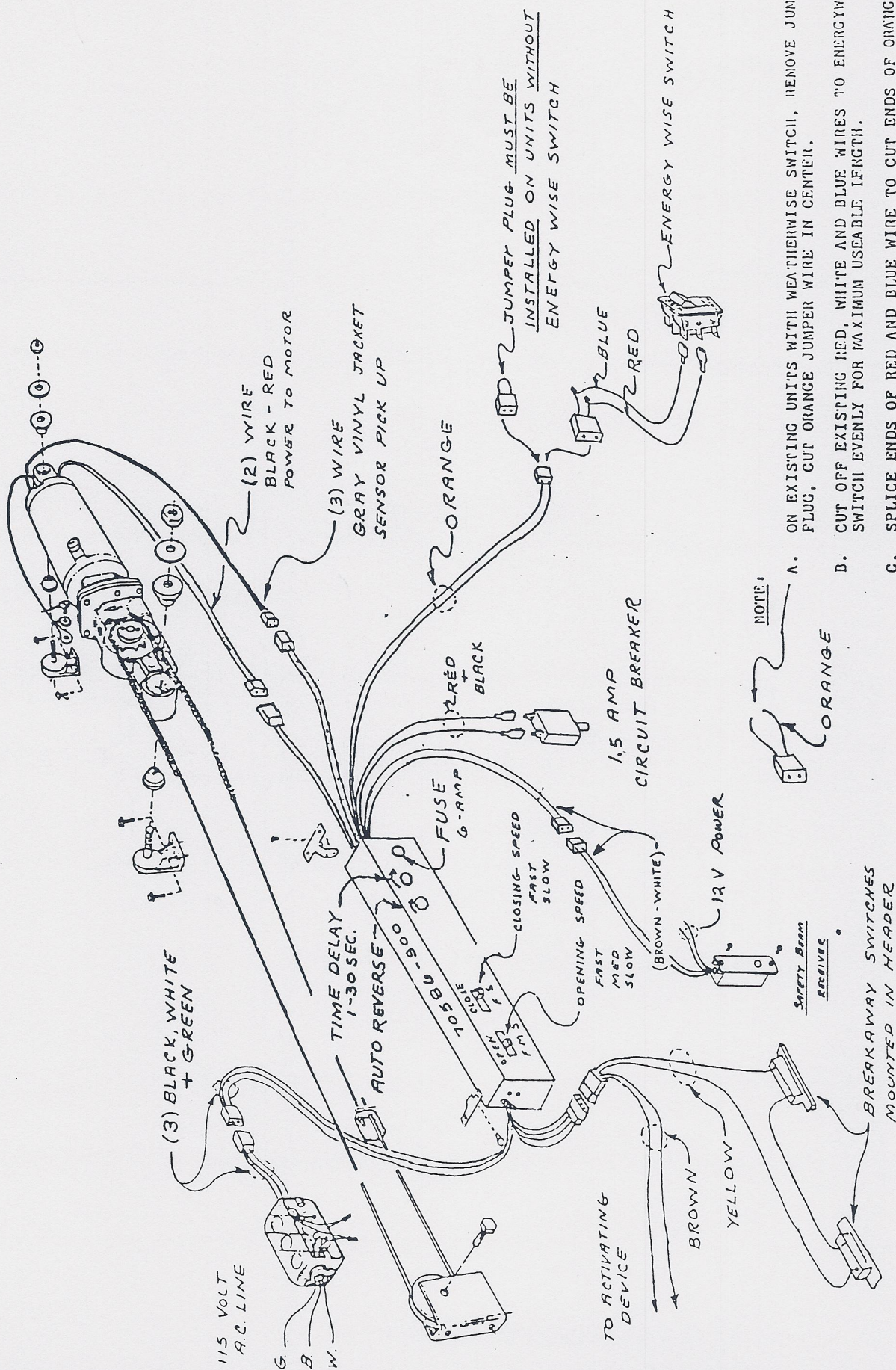
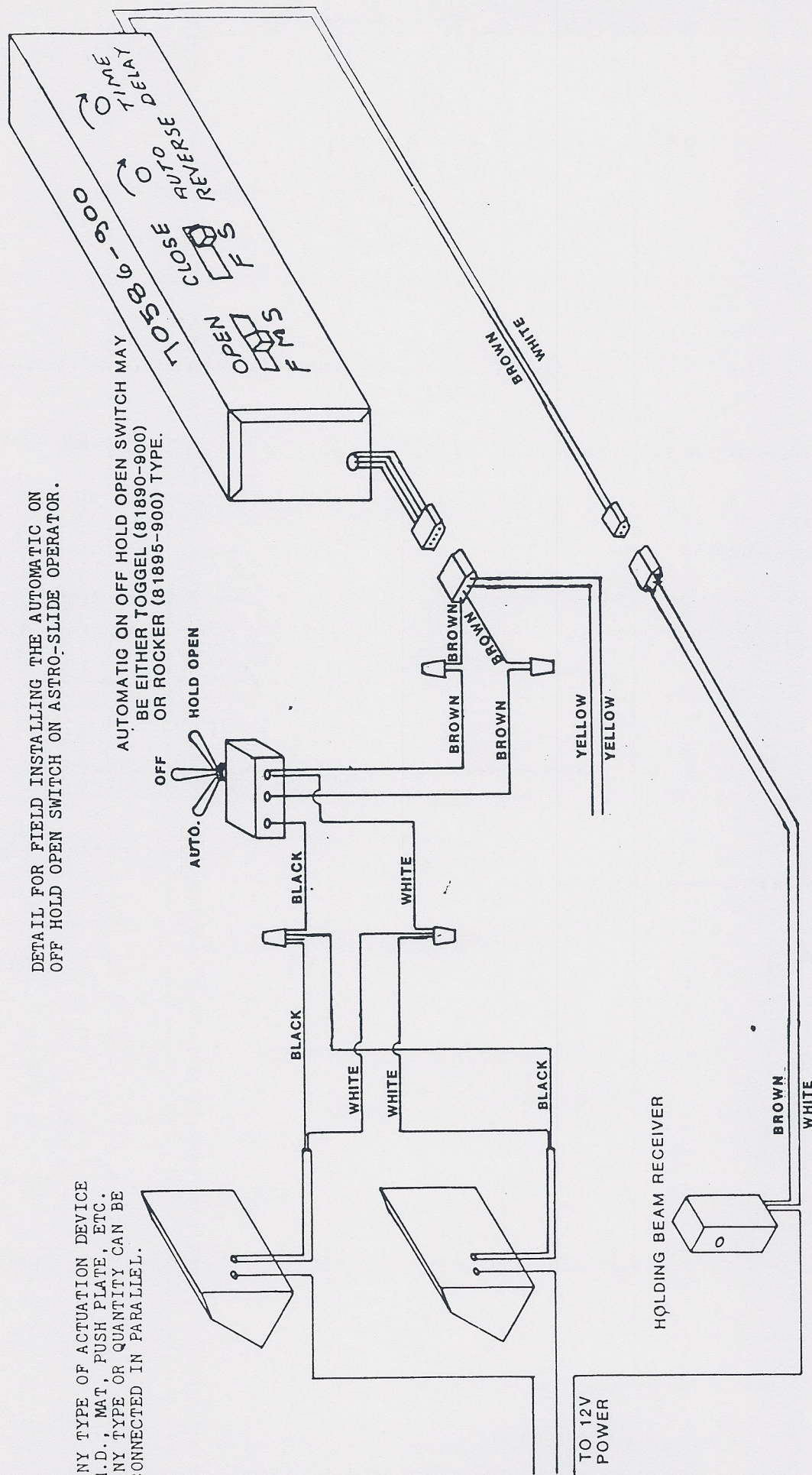


FIG. 3

- A. ON EXISTING UNITS WITH WEATHERWISE SWITCH, REMOVE JUMPER PLUG, CUT ORANGE JUMPER WIRE IN CENTER.
- B. CUT OFF EXISTING RED, WHITE AND BLUE WIRES TO ENERGYWISE SWITCH EVENLY FOR MAXIMUM USEABLE LENGTH.
- C. SPlice ENDS OF RED AND BLUE WIRE TO CUT ENDS OF ORANGE WIRE ON JUMPER PLUG AS SHOWN.
- D. WHITE WIRE NOT USED.

ANY TYPE OF ACTUATION DEVICE  
M.D., MAT, PUSH PLATE, ETC.  
ANY TYPE OR QUANTITY CAN BE  
CONNECTED IN PARALLEL.

AUTOMATIC ON OFF HOLD OPEN SWITCH MAY  
BE EITHER TOGGLE (81890-900)  
OR ROCKER (81895-900) TYPE.



# TROUBLE SHOOTING GUIDE

## CUSTOMER COMPLAINTS →

## PROBABLE CAUSE

	DEAD	WILL NOT OPEN	WILL NOT OPEN FULLY	ERRATIC OPENING & CLOSING	WILL NOT CLOSE	RE-CYCLE	BLOWS FUSE OR CKT BREAKER	BLOWN PROGRAM
115V. POWER OFF	X	X						
IMPROPER WIRING	X	X					X	X
NOT CONNECTED	X	X						
OPEN CKT BREAKER	X	X						
BLOWN FUSE	X	X						
DOOR LOCKED	X	X						
LOW VOLTAGE	X	X						
OPEN SIDE PANEL		X						
OPEN SWITCH OFF POSITION	X	X						
INOPERATIVE ACTIVATING DEVICE		X						
DOORS, BINDING (SEE PG. 7)		X	X	X	X	X		
ENERGYWISE, JUMPER NOT INSTALLED			X					
LOOSE WIRES	X		X	X	X			
HALL UNIT NOT CONNECTED			X	X	X			
CLOSING SWITCH IN CENTER					X			
SAFETY BEAM ACTIVATED					X			
ACTIVATION DEVICE ACTIVATED					X			
AUTO. REVERSE SET TOO LOW						X		
PHANTOMING MOTION DETECTOR						X		
SHORTED WIRES							X	
SHORTED MOTOR							X	

## COMMENTS ON DOORS BINDING

Approximately one half of all field problems are related to some type of binding condition of the sliding door which in many cases cause premature failure of other parts in the system or improper operation of the door (sluggish, slow, erratic, or "just not quite right").

Service personnel must take the necessary time to check for, and correct any binding conditions that exist, or door problems will continue. With automatic doors there is no such thing as "that is someone else's problem". The automatic door manufacturer and the service personnel always get the blame.

### Common causes of binding:

1. Additional sweeps or weather stripping added to door.
2. Rocks, glass or dirt build up in guide track.
3. Door partially broken away and sagging down on floor.
4. Door rubbing on panel or side light.
5. Door dragging on threshold due to:
  - A. Metal expansion due to heat.
  - B. Heaving floor due to freezing and thawing.
  - C. Installing doors over building expansion joints.
6. Loose screws in guide track.
7. Anti riser screw adjusted up too tight.
8. Chain and cable adjusted too tight.
9. Bottom lock rods dragging on floor.
10. Uneven floor conditions.
11. Extra floor mats getting caught under door.
12. Ice or snow build up along bottom guide.
13. Carrier rollers not turning due to:
  - A. Frozen bearing.
  - B. Chips or dirt embedded in roller.
  - C. Bracket screw too long.
14. Cable roller not turning.
15. Motor or gear box damaged and binding up.