

DOR-O-MATIC®
AUTOMATIC DOOR SYSTEMS

**Benchmark
Swing Operator**

Installation Instructions

95239-900 Standard
95339-900 Premium



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DOR-O-MATIC®
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3. WIRING



CAUTION

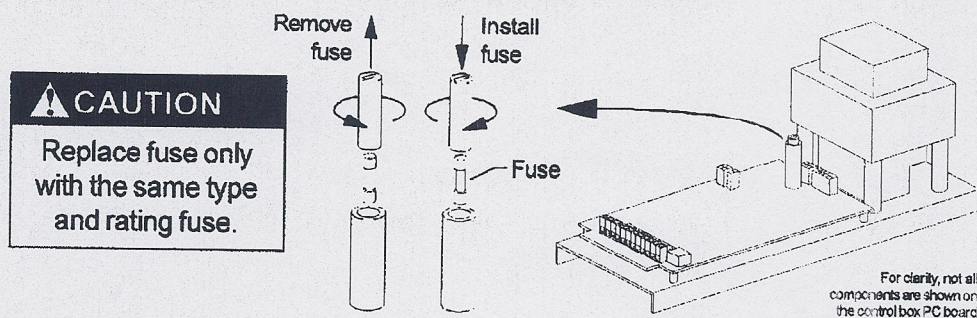
- Make sure all wires are properly dressed and secured to prevent interference.
- Route all wiring away from moving parts, sharp edges, and heat sources.
- Use copper conductors only.
- Do not modify the factory wiring or connect into existing electrical circuits or devices.

- 3.1. Refer to the appropriate wiring diagram for the standard control box (page 10) or the premium control box (page 11), and connect the following cables:
- Ground Cable (ground the operator properly with a separate green ground wire)
 - Hall Effect Cable (do not wrap the Hall Effect cable around the Motor Power cable)
 - Motor Power Cable (do not wrap the Motor Power cable around the Hall Effect cable)
 - Main Power Cable
 - Control Box Power Cable
- 3.2. Connect Activate, Safety, 3-Position Switch, and Lock accessories as needed. Refer to the accessory instructions for any accessories used. Do not connect any remote activating device to the door unless it is located within line of sight of the door. An SO Kit is required if DC powered accessories are powered from the 17 VAC control box terminals.
- 3.3. When wiring is complete, go to "Arm and Cover Installation" on page 12.

"NO," "NC," and "AUX. ACT." Circuits

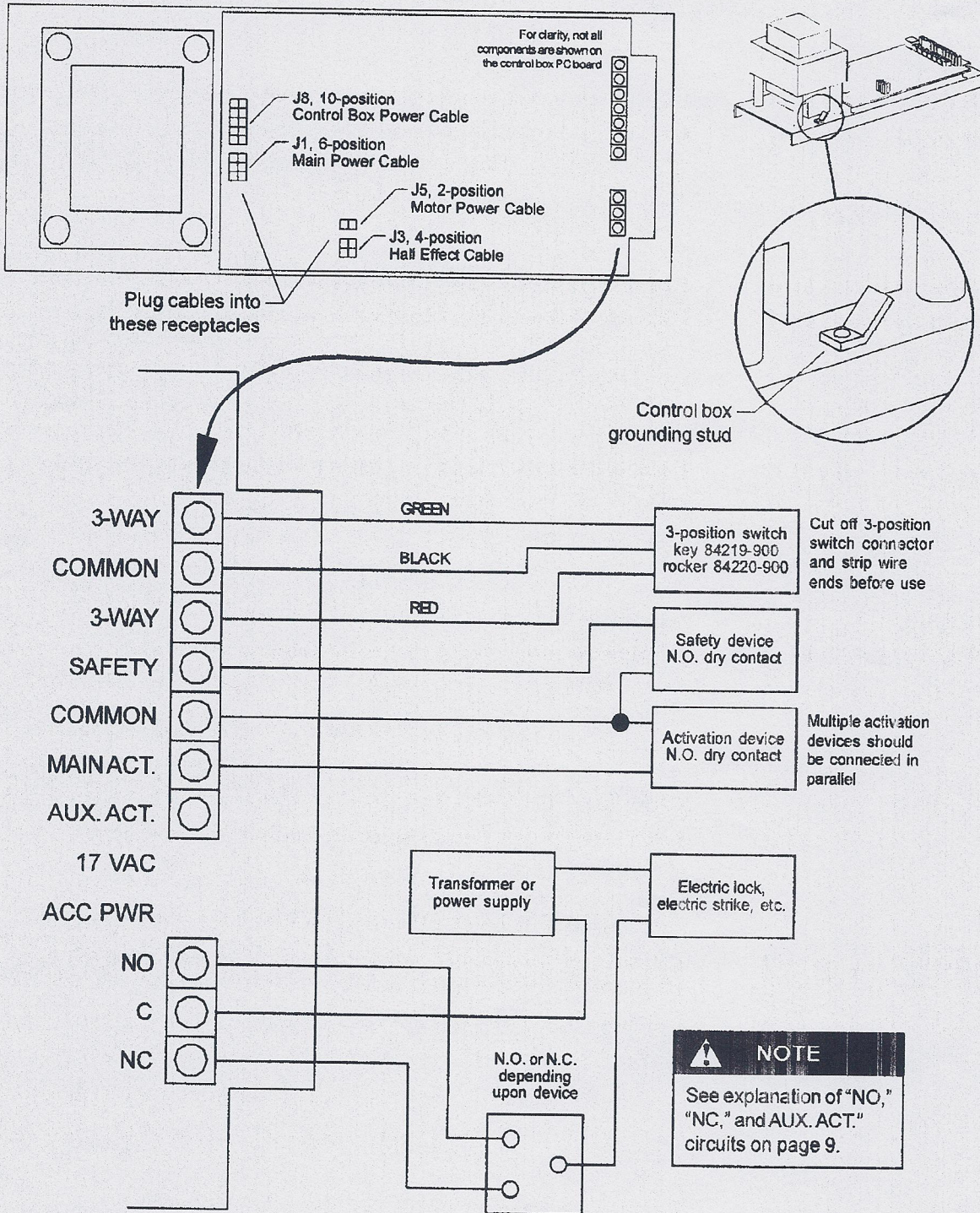
- "NO" and "NC" are for a de-energized relay.
- The relay is not energized when the 3-position switch is OFF and when the door is opening.
- The relay is energized when the 3-position switch is set to AUTO and when the door is closed.
- Connect fail secure locks to "NC."
- Connect fail safe locks to "NO."
- The "AUX. ACT." circuit is used for special applications only.

To Change Fuse



3. WIRING (continued)

Standard Control Box Wiring




5. OPERATIONAL CHECK

- 5.1. Set the 3-position switch to AUTO and turn on the operator power switch.
- 5.2. Activate the operator using an activation device. The operator will perform one sizing cycle.
Sizing Cycle: Occurs when the door is activated for the first time after power has been turned on. During the sizing cycle, the door opens and closes one time.
- 5.3. If the door does not open at all during the sizing cycle:
 - Check door for binds.
 - If an electromechanical lock is being used, check that the lock disengages before the operator opens the door.
 - Check fuse(s), circuit breaker, and connections.
 - Adjust the operator and check door operation (see "Operator Adjustment" on page 15):
 - Opening speed: maximum
 - Back check speed: maximum
 - Hold open time delay: minimum
 - Back check position: 50%
 - Latch position: maximum
 - Closing speed: maximum
 - SW1 #1, #2, #3, #4: off
- 5.4. If the door does not open fully during the sizing cycle:
 - Check door for binds.
 - Increase the back check speed slightly and check door operation. Continue increasing back check speed until the door opens fully.
- 5.5. If the door slams open, decrease the back check speed slightly and check door operation. Continue decreasing back check speed until the door opens without slamming.
- 5.6. After the sizing cycle is complete and the door is closed, apply a maintained activation signal and check that the door remains open while the activation signal is applied.
- 5.7. If a door safety device is being used:
 - 5.7.1. Activate the door and then activate the safety device while the door is open. The door should not close while the safety device is activated. Next, deactivate the safety device. The door should close after the hold open time delay expires.
 - 5.7.2. With the door closed, activate the safety device, then activate the door. The door should not open while the safety device is activated. Next, deactivate the safety device. The door should open.
- 5.8. When the door is operating properly, continue with step 4.10 on page 13.

6. OPERATOR ADJUSTMENT

See table below and diagrams on page 16 for operator feature adjustment. After adjusting, cycle the door several times and check for proper operation, then continue with step 4.11 on page 13.

 **NOTE**

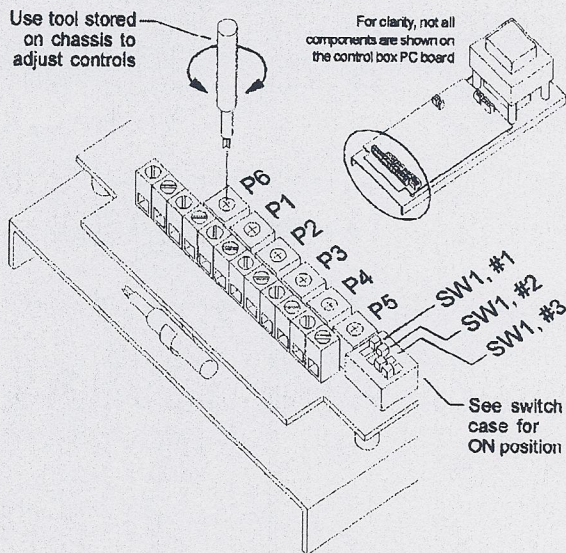
Adjust the operator for the slowest operation practical in accordance with the latest revisions of Americans with Disabilities Act, ANSI/BHMA A156.19 Standard for Power Assist and Low Energy Power Operated Doors, and local codes.

- Opening Speed: 3 sec or more
- Closing Speed: 3 sec or more
- Latch Location: 10 degrees or more
- Latch Speed: 1.5 sec or more

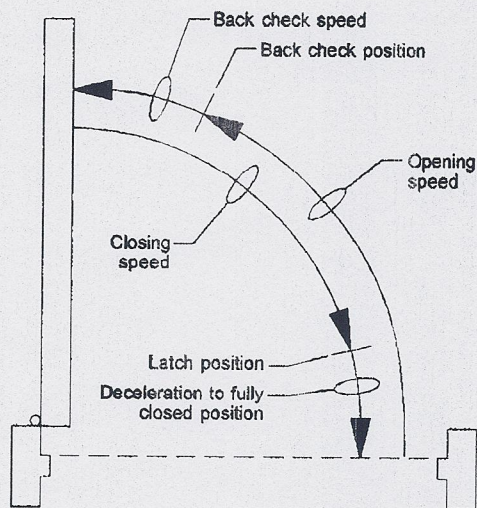
Feature	Control	Description	Counterclockwise	Clockwise
Opening speed	P1	Controls opening speed of any normal weight and size door	Slower	Faster
Back check speed	P2	Controls speed of door near full open position to prevent door slamming open	Slower	Faster
Hold open time delay	P3	Controls length of time door remains fully open following an activate signal, 1 to 30 sec	Less time 1 sec minimum	More time 30 sec maximum
Back check position	P4	Determines distance at which door begins to decelerate near the full open position	Less back check	More back check
Latch position	P5	Determines distance at which door begins to decelerate near the full closed position	Less latch	More latch
Closing speed	P6	Controls closing speed of any normal weight and size door	Slower	Faster
Delayed activation	SW1, #1	When switched ON, causes a 1 sec delay between activation signal and door opening; this allows time for most electric locks to disengage before the operator opens the door		
Push-N-Go	SW1, #2	When switched ON, pushing door open 5 degrees causes operator to open door for the remainder of the opening cycle		
Power Boost (Premium Control Box only)	SW1, #3	When switched ON, electronically increases closing force of door from 9 lbs to 18 lbs to close door against high winds or stack pressure; Power Boost turns on for 5 sec after door comes to a stop at least 80 degrees into its closing cycle		

6. OPERATOR ADJUSTMENT (continued)

Operator Adjustment Controls



Door Position Definitions



7. RELEASE FOR SERVICE

- 7.1. Remove all tools, installation equipment, and debris from the vicinity of the door.
- 7.2. Install all safety, traffic control, and instruction decals on the door as required by the latest revision of ANSI/BHMA A156.19. **This is very important! Failure to do this leaves the installer LIABLE for any accident that might occur. This must be done!**
- 7.3. Verbally instruct the owner or person in charge of the proper operation of the door.
- 7.4. Instruct the owner or person in charge to routinely inspect the door for the following:
 - Occasional damage
 - Developing problems
 - Minor preventive maintenance
- 7.5. Instruct the owner or person in charge who and where to call for service when required.

⚠ IMPORTANT

Make sure to install all safety, traffic control, and instruction decals on the door as required.