

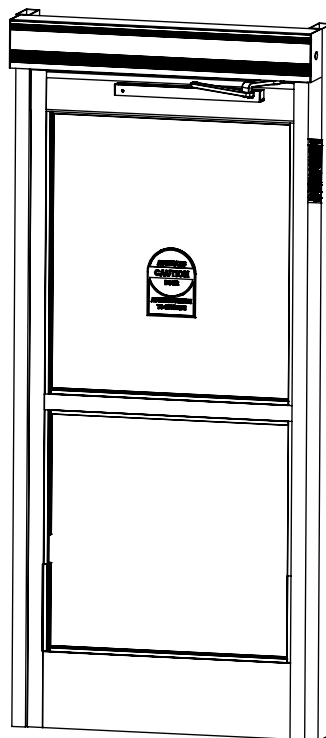
# DC7000 Series LE Operator

## Surface Applied Swing Unit



**Door Controls USA, Inc.**

## Installation Instructions



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## INSTRUCTIONS TO THE INSTALLER

To ensure safe and proper operation, this door is to be installed and adjusted by a trained and experienced installer with knowledge of:

- All applicable local codes.
- ANSI A156.19 American National Standard for Power Assist and Low Energy Power Operated Doors.
- Door Controls recommendations for DC7000 operators.

If there are any questions about these instructions call Door Controls USA Technical Assistance 800-437-3667.

## INFORMATION TO BE PROVIDED BY THE DISTRIBUTOR TO THE OWNER

- Instructions on the safe operation of the door (after installation).
- Owner's Manual with explanation/demonstration of the daily safety check.
- Location of power on/off switch.
- Necessary warnings not covered in these general instructions.
- Date equipment placed in service.
- Door Controls' invoice number for warranty reference.
- Equipment type and Accessories included.
- Phone number to call regarding problems or request for service.
- Emphasize that, if a potentially hazardous situation is suspected, the door should be taken out of automatic service until a professional inspection is made and the problem is corrected.

**GENERAL REQUIREMENTS:**

- POWER 120VAC, 60 HZ, 15 AMP
- ACTUATION WIRING (22 AWG, 2 WIRE)
- ACCEPTABLE SUPPORT FOR HEADER

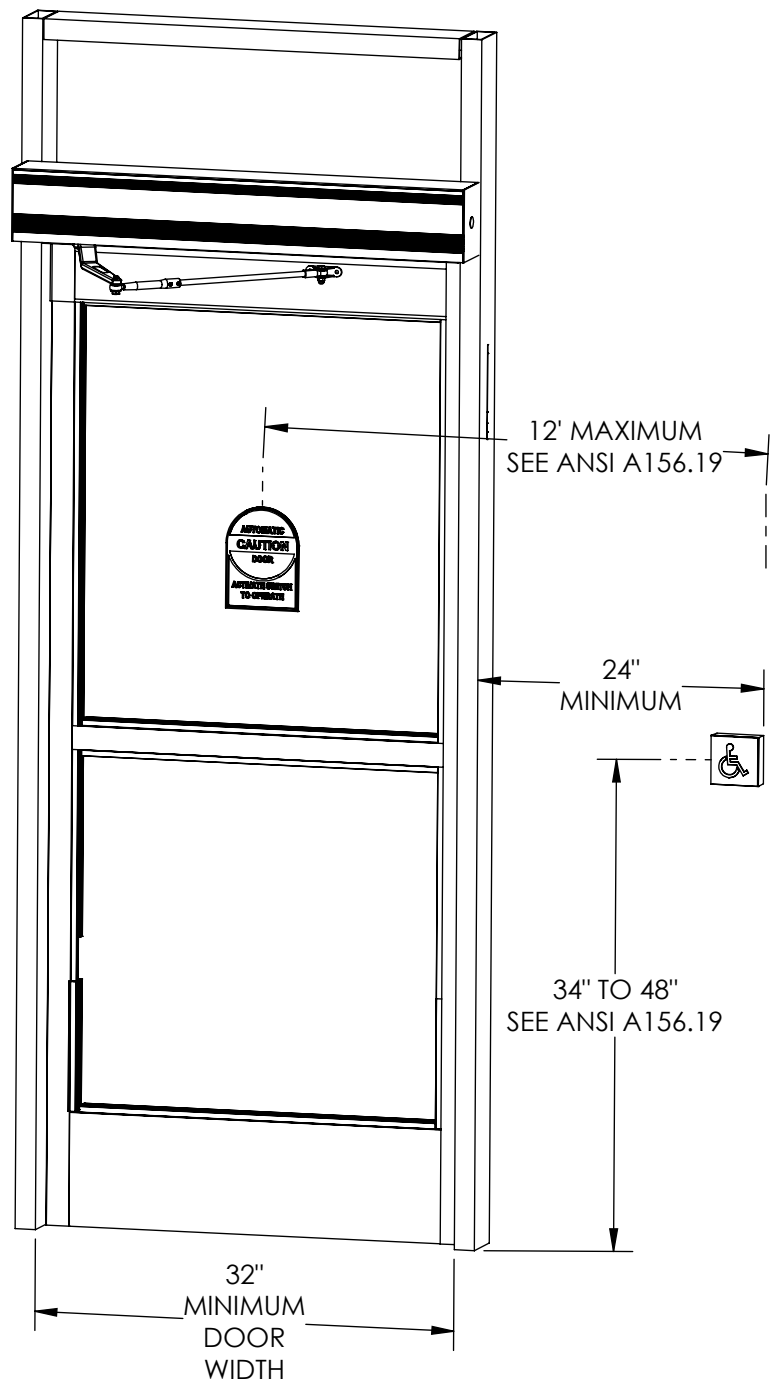
**HANDICAP CODE REQUIREMENT**

- ACTIVATION SWITCH MUST BE LOCATED IN VIEW OF THE DOOR AND NOT ON THE DOOR FRAME. SEE ANSI A156.19 OR CONSULT ANSI A117.1 FOR ADDITIONAL INFORMATION ON GUIDELINES FOR ACTIVATION SWITCHES.

**NOTE:** REFER TO SECTION 10  
FOR REQUIRED DECALS.

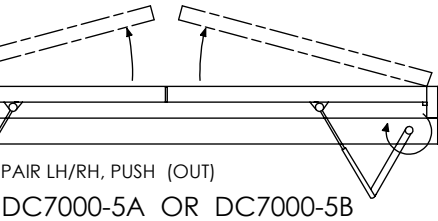
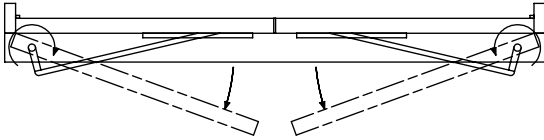
**NOTE:** MINIMUM OF 5'x5' CLEAR AND LEVEL  
FLOOR IS REQUIRED ON BOTH SIDES  
OF DOOR WAY.

**NOTE:** BOTTOM HORIZONTAL RAIL MUST BE AT  
LEAST 7 1/2" ON ALUMINUM/GLASS DOORS.  
(LOCAL CODES MAY REQUIRE MORE)

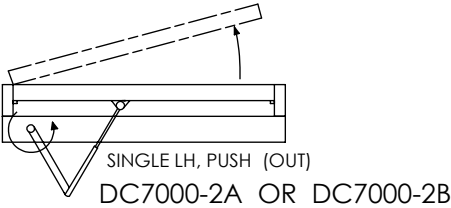
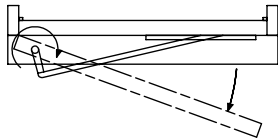


**3. DC7000 SWING APPLICATIONS**

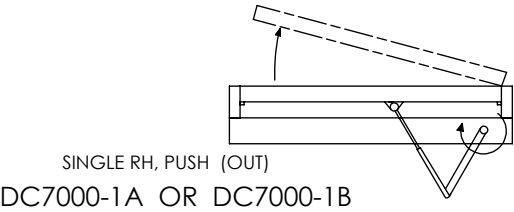
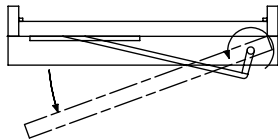
PAIR LH-RH, PULL (IN) 0" TO 6" REVEAL  
DC7000-6A OR DC7000-6B



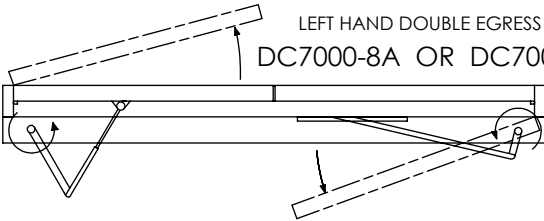
SINGLE RH, PULL (IN) 0" TO 6" REVEAL  
DC7000-3A OR DC7000-3B



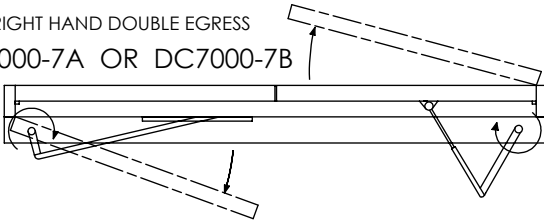
SINGLE LH, PULL (IN) 0" TO 6" REVEAL  
DC7000-4A OR DC7000-4B



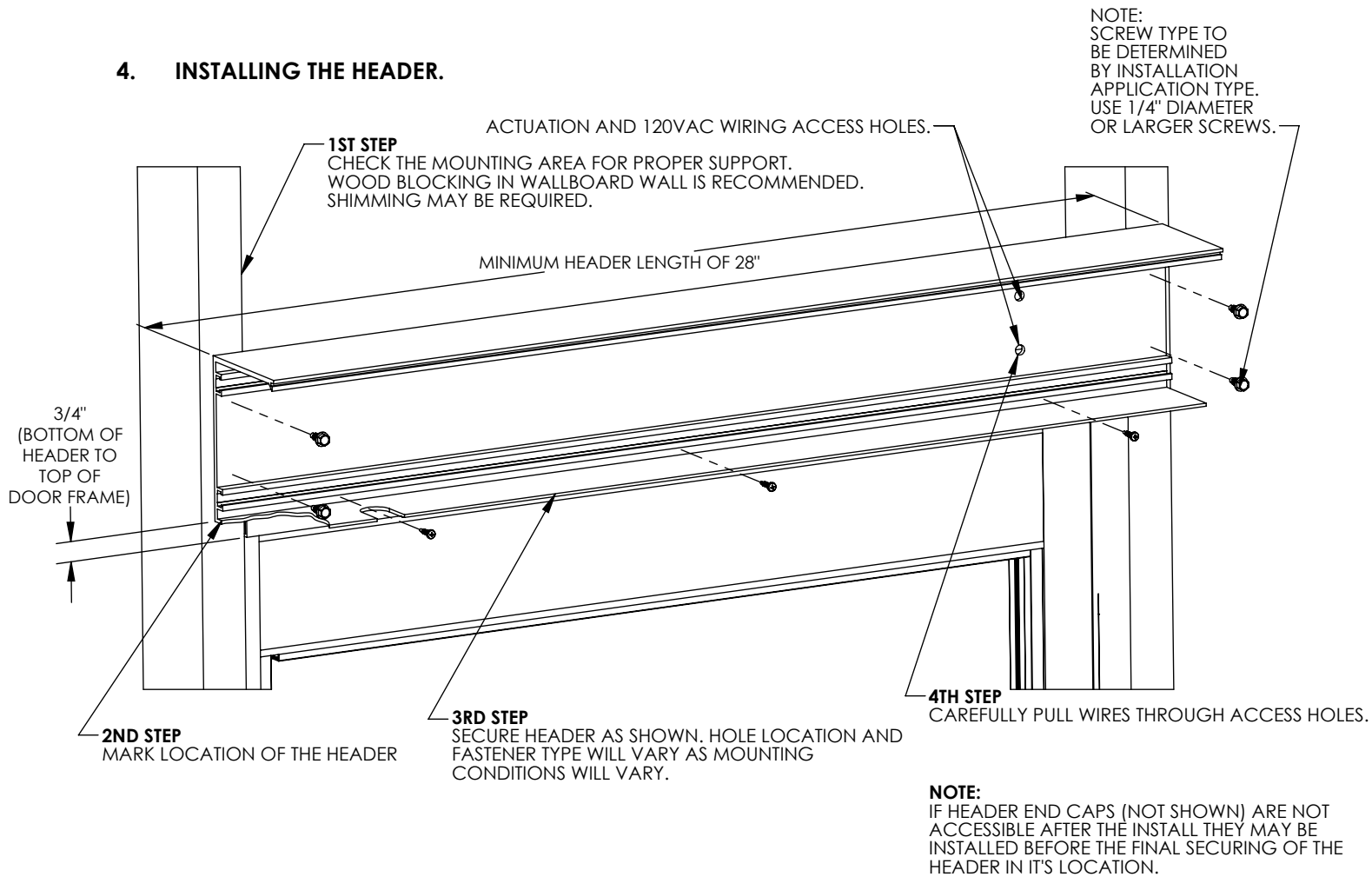
LEFT HAND DOUBLE EGRESS  
DC7000-8A OR DC7000-8B



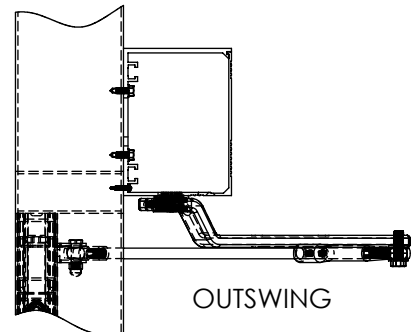
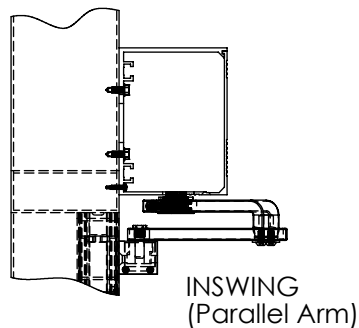
RIGHT HAND DOUBLE EGRESS  
DC7000-7A OR DC7000-7B



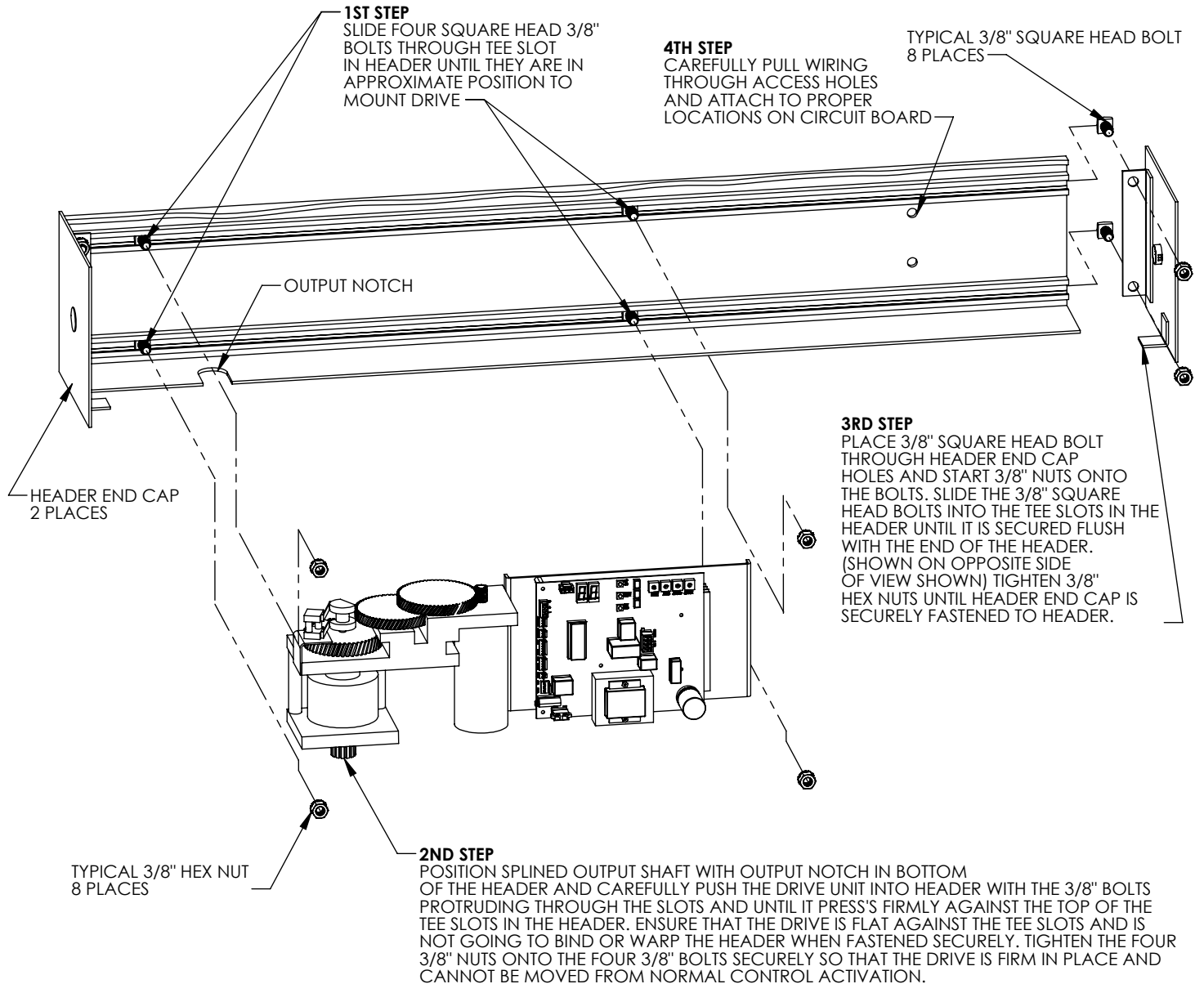
#### 4. INSTALLING THE HEADER.



#### STANDARD MOUNTING CONDITIONS

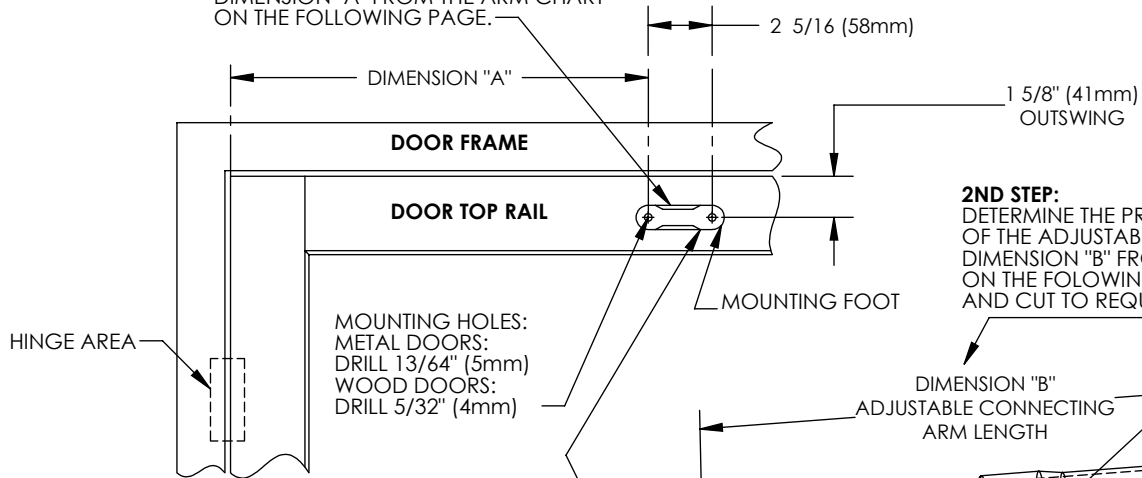


## MOUNTING THE OPERATOR IN THE HEADER

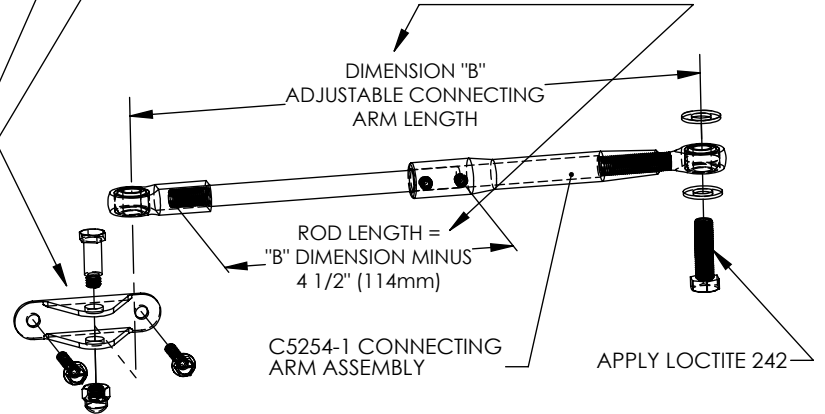


## 5. INSTALLING THE ADJUSTABLE CONNECTING ARM

**1ST STEP:**  
LOCATE AND MOUNT THE FOOT USING  
DIMENSION "A" FROM THE ARM CHART  
ON THE FOLLOWING PAGE.



**2ND STEP:**  
DETERMINE THE PROPER LENGTH  
OF THE ADJUSTABLE ROD USING  
DIMENSION "B" FROM THE ARM CHART  
ON THE FOLLOWING PAGE  
AND CUT TO REQUIRED LENGTH

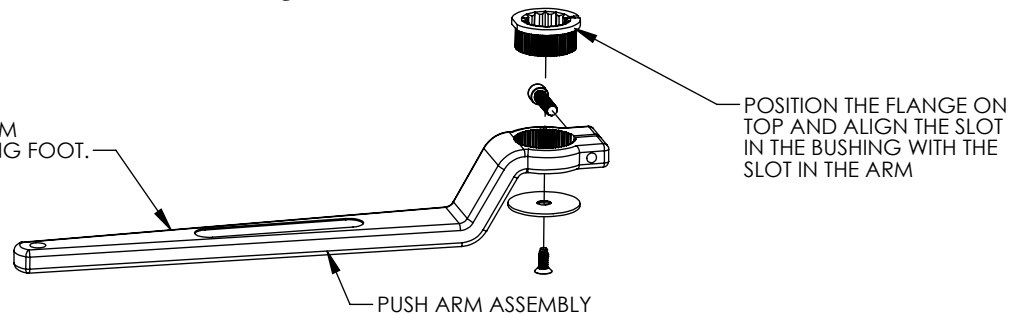


### MOUNTING FOOT ASSEMBLIES:

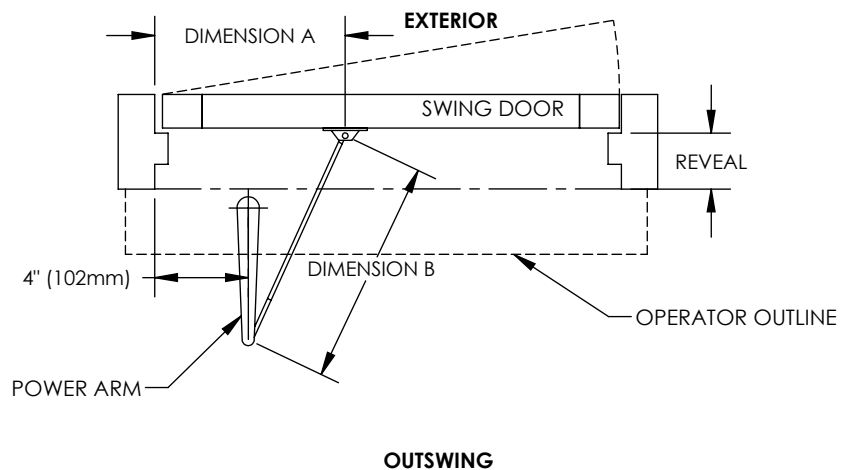
**METAL DOORS:**  
1. MOUNTING FOOT, 1 PIECE  
2. 1/4"-20x2 1/4" HEX BOLTS, 2 PIECES  
3. 1/4" SPLIT RING LOCK WASHERS, 2 PIECES  
4. 1/4"-20 ACORN HEX NUT, 2 PIECES

**WOOD DOORS:**  
1. MOUNTING FOOT, 1 PIECE  
2. #14x1 1/2" SCREWS, 2 PIECES

**3RD STEP:**  
ASSEMBLE THE CONNECTING ARM  
AND ATTACH IT TO THE MOUNTING FOOT.



### STANDARD ARM CONNECTIONS



## ARM CHART LENGTH

REVEAL	BUTT END OR PIVOT		CENTER PIVOT 2 3/4"	
	OUTSWING		OUTSWING	
	A	B	A	B
0	16" (406)	17 1/8" (435)	16" (406)	16 1/2" (419)
1/2" (13)	16" (406)	17 1/2" (445)	16" (406)	16 7/8" (429)
1" (25)	16" (406)	17 3/4" (451)	16" (406)	17" (432)
1 1/2" (38)	16" (406)	18 1/4" (464)	16" (406)	17 3/4" (451)
2" (51)	16" (406)	18 1/4" (464)	17" (432)	18 3/4" (476)
2 1/2" (64)	16 1/2" (419)	19 1/4" (489)	17" (432)	19" (438)
3" (76)	16 1/2" (419)	19 3/4" (501)	18" (457)	20" (508)
3 1/2" (89)	16 1/2" (419)	20 1/8" (511)	18" (457)	20 1/2" (521)
4" (102)	17" (432)	20 3/4" (527)	19" (438)	21 1/2" (546)

**NOTE:** IF REVEAL IS GREATER THAN 4" CONSULT FACTORY.  
 \*FOR 3 3/4" CENTER PIVOT ADD 1" TO DIMENSION A \*

### 6. SETTING THE OPEN STOP AND PRE LOAD.

**CAUTION:** WHEN INSTALLING THE POWER ARM OR WHEN SERVICING ANY SWING DOOR, BE SURE TO KEEP HANDS, FACE AND ARMS CLEAR OF THE ARM'S SWING PATH. **SERIOUS INJURY** COULD RESULT FROM THE MOVING ARM SHOULD THE OPERATOR BE ACCIDENTALLY ACTIVATED.

#### 3RD STEP:

ENERGIZE THE OPERATOR TO ROTATE THE OUTPUT SHAFT TO FULL OPEN POSITION AGAINST ITS INTERNAL STOP. THIS ACTION WINDS THE SPRING.

#### 2ND STEP:

MANUALLY OPEN THE DOOR TO FULL OPEN POSITION (OR AS SPECIFIED)

#### 1ST STEP:

FOOT AND ROD SHOULD BE ATTACHED TO DOOR IN THE CORRECT LENGTH AND POSITION

ALTERNATE METHOD  
 ON OUTSWING UNITS ONLY:  
 POSITION THE DOOR IN THE CLOSED POSITION AND THE ARM AT 90° TO THE DOOR. ATTACH THE FOOT AND ROD TO THE DOOR. THEN REMOVE THE ARM FROM THE OUTPUT SHAFT

#### 4TH STEP:

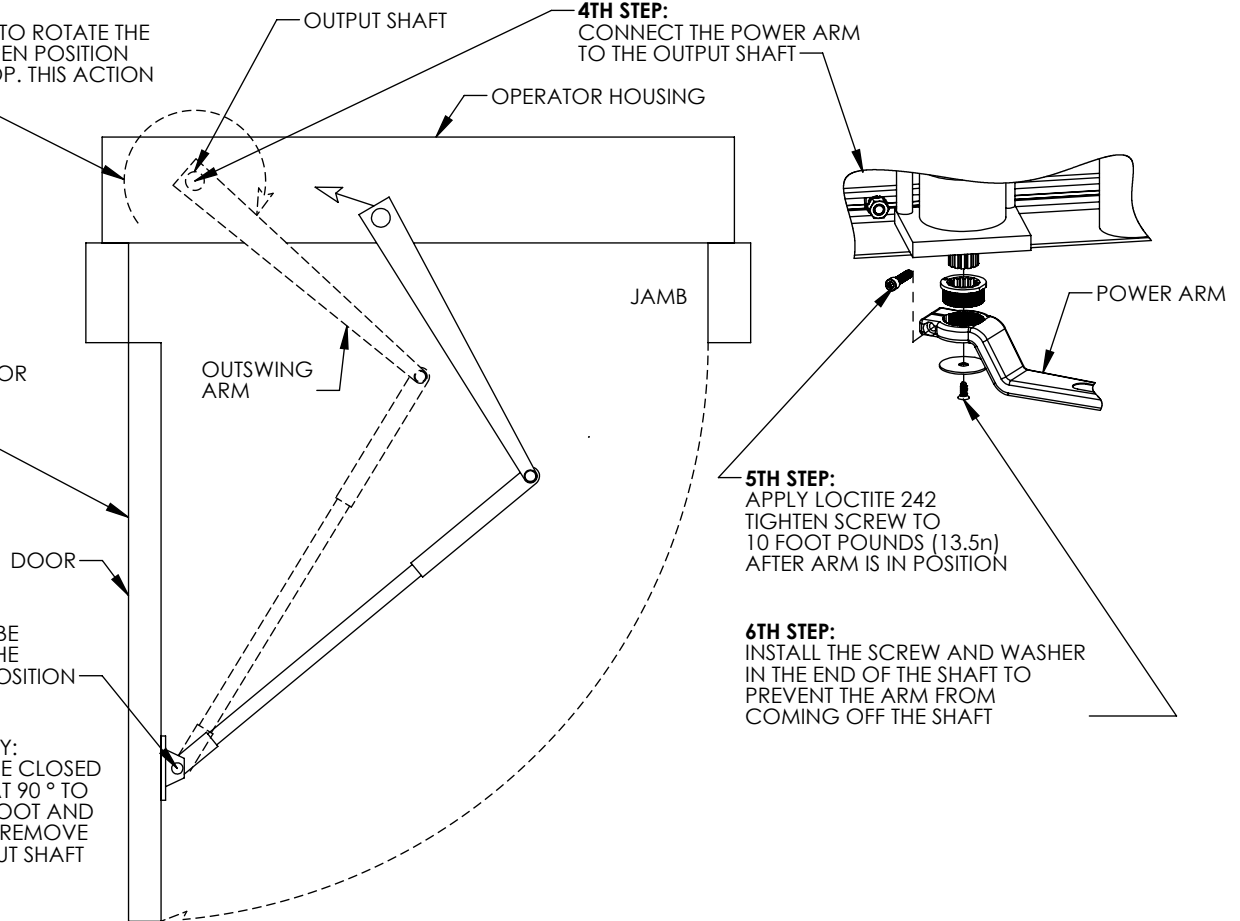
CONNECT THE POWER ARM TO THE OUTPUT SHAFT

#### 5TH STEP:

APPLY LOCTITE 242  
 TIGHTEN SCREW TO  
 10 FOOT POUNDS (13.5n)  
 AFTER ARM IS IN POSITION

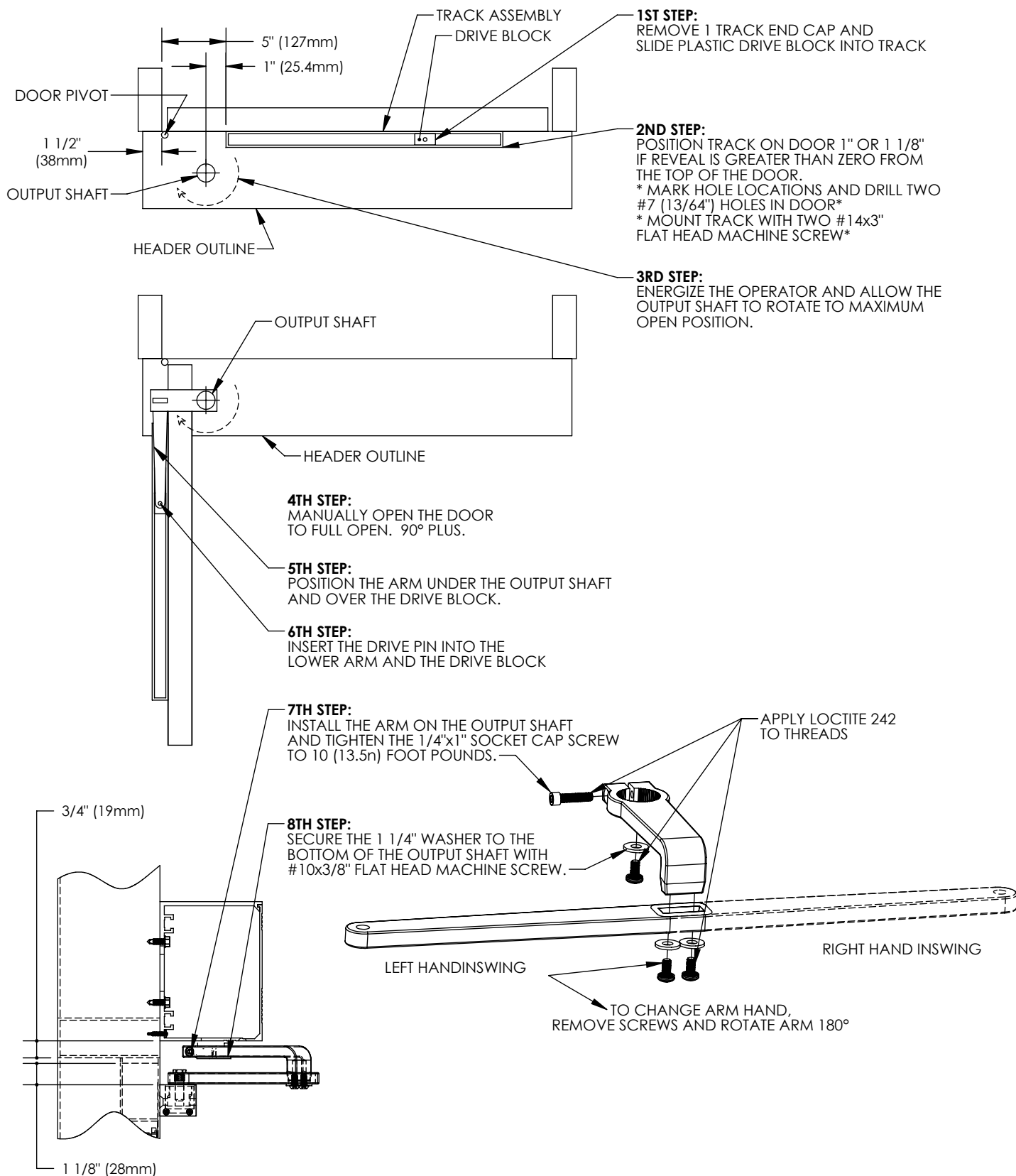
#### 6TH STEP:

INSTALL THE SCREW AND WASHER  
 IN THE END OF THE SHAFT TO  
 PREVENT THE ARM FROM  
 COMING OFF THE SHAFT





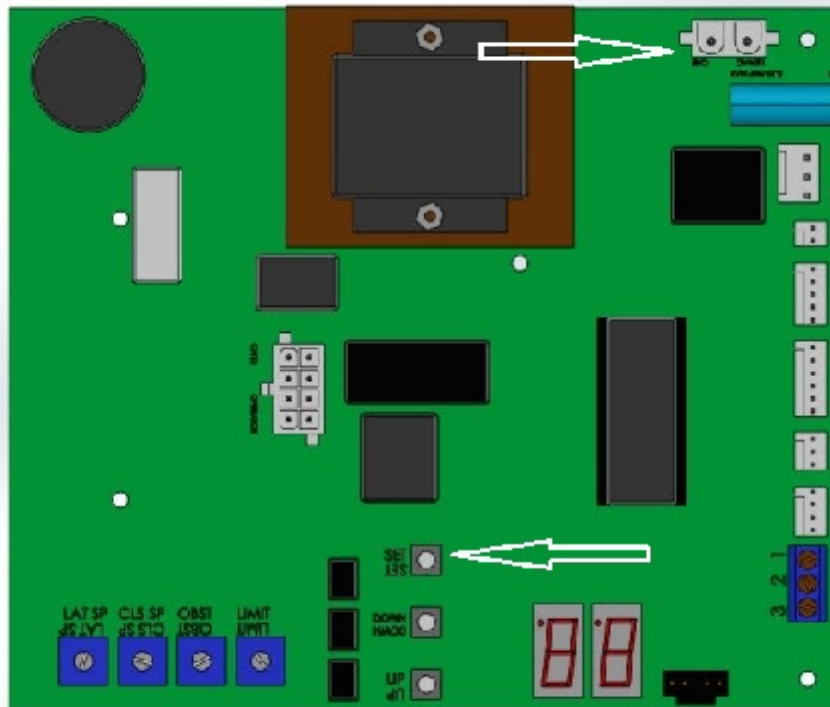
## 7. INSTALLING THE PULL ARM AND TRACK



## 8. QUICK SET UP Using Default Setting

**Attention:** This unit has been pre-programmed to a generic 90 deg opening position.  
Please follow the instructions below for a quick set up:

1. Plug in the wiring harness from the controller to the operator (done at the factory).
2. Do not plug in any additional accessories, i.e. safety switches, door lock switches or actuating devices.
3. Plug in motor and check for polarity (done at factory). When opened manually, motor should return slowly to the stopped position if wired correctly.
4. Plug in the line power (120vac) harness. Turn **Three Position Switch** to the **HOLD** position. The motor should open to the full hard stop position.
5. With the door at full open position, securely install the main arm to the operator using 1/4" wrench. Then connect the rod to the main arm using 9/16" wrench. Check upper (outside) cam. The switch should be in the down position (flat part of cam). If not, use cam tool provided to set the cam.



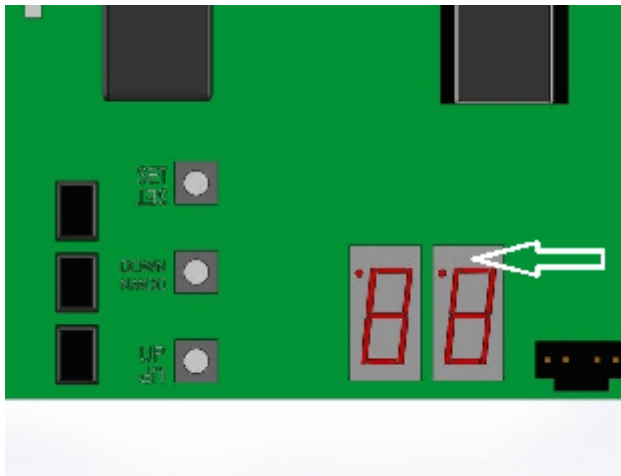
6. Turn **Three Position Switch** to the **OFF** position and let the door close completely. Check lower inside cam. The switch should be in the down position (flat part of cam). If not, use cam tool provided to set the cam.
7. Turn **Three Position Switch** to the **Auto** position. After a couple of seconds the **Id** should be on the display. Test door by pressing the **Down** button on the control board. Be sure to install the screw and the washer in the end of the shaft to make sure the arm doesn't drop after prolonged operation.

## Adjustment Procedure

During the following sections, if any delays, options, or speeds (other than closing speeds) need adjustment, switch the **Three Position Switch** to the **off** position.

### Programming Mode:

With the **Three Position Switch** in the **off** position. The small circle on the display will blink on & off (this indicates the control is in the programming mode)



To change parameters, use the **UP** or **DOWN** buttons to find the parameter you want to change. Press and hold the **SET** button to see the current value. To make changes, continue to hold the **SET** button while pressing the **UP** or **DOWN** buttons to increase / decrease the value. When done, release the **SET** button.

Turn the **Three Position Switch** to the **on** position and press the down button to cycle the door. **If you are satisfied with your settings, press and hold the SET button until dS is shown on the display**

**IMPORTANT: NO SETTINGS WILL BE SAVED UNLESS YOU FOLLOW THIS STEP!**

Switch the door back on and check the operation using the new value(s). Refer to **Parameter List**, for descriptions of the parameters and their factory defaults.

CODE	PARAMETER	DEFAULT VALUE	RANGE
OS	Open Speed	4	0 - 15
OC	Open Check	9	0 - 15
HO	Hole Open	4	0 - 15
SS	Safety Slow	5	0 - 15
AC	Acceleration	15	0 - 15
dC	Deceleration	0	0 - 15
Uj	Unjam power	0	1 - 16
d1	Time delay 1 ( standard )	1 sec	1 - 99
d2	Time delay 2 ( push-n-go )	1 sec	1 - 99
d3	Time delay 3 (close recycle )	1 sec	1 - 99
LC	Latch Check delay	3 sec	1 - 99
UL	Unlock delay	0.8 sec	0.1 - 9.9
AF	Auxiliary Function	1	1 - 3
ct	cycle test	off	Do Not Change
PG	Push-N-Go	off	off / on
Cr	Close recycle	on	off / on
SL	Slow open speed	open speed reduced 50%	off / on
LL	Lock present	off ( no lock )	off / on
HS	Hold Strike	off ( turn off lock 1 sec )	off / on
U1-3	User Parameter 1 - 3	empty	0 - 99
--	Blank parameter ( skip past )	n/a	n/a

## Parameter List

The following list shows all the adjustable parameters in the ES500 control, along with a brief description of their function and their factory default values.

**OS** Open Speed. Sets the opening speed of the door before the open check switch is released. Possible values are 0-15, and default is 4

**OC** Open Check. Adjusts from 0 – 15. Default is 9. Determines opening speed after the open check switch is released (within 15-45° of door opening)

**HO** Hold Open. Adjusts from 0-15. Default is 3. Should be adjusted to the minimum power required to keep the door from drifting closed after the display switches to HO

**SS** Seek Speed. Adjusts from 0-15. Default is 5. Should be adjusted to make the door creep open following the “obstruction” response (see section 1.4)

**AC** **AC**celeration . Determines how fast the door ramps up to open speed following an accurate command. Possible values are 0-15, and the setup default is 15 (maximum acceleration)

**dC** **d**eceleration. Determines how fast door slows down after the open check switch is released. Possible values are 0-15. The setup default of 0 switches door immediately from “speed” to “check” with no ramp down.

**UJ** **U**nJam power. Determines amount of power the control applies in the closing direction to unjam the lock and/or door prior to opening. Possible values are 0-16. And the setup default is 0 (do not apply unjam power). Note that unjam power may be used with or without a lock present.

**d1** Time **d**elay **1** (standard). This delay is used with all standard actuating devices. (push button, radio control, or motion detector). The time delay begins when the door reduces speed to open check. Possible values are 1-99 seconds. And the setup default is 1 second.

**d2** Time **d**elay **2**. (push-n-go). This delay is used only when the door has been actuated by a push-n-go signal. The time delay begins when the door reduces speed to open check. Possible values are 1-99 seconds, and the setup default is 1 second. Note: **df** takes priority over **d2**. If the door is opened via push-n-go, then a standard actuating signal (pushbutton, ect.) is received, **d1** replaces **d2**.

**d3** Time **d**elay **3** (close recycle). This delay is used only when the door has been recycled by an obstruction detected while attempting to close. The time delay begins when the door reduces speed to open check. Possible values are 1-99 seconds. And the setup default is 1 second. For paired operation, **d3** must be set the same as **d1**.

**LC** **L**atch **C**heck delay. This delay begins when the door reduces speed to the latch check. It should be set to insure that the door is fully closed before the display switches from **LC** to **Id**. It prevents the safety devices, if any, from being re-enabled too early during the closing sequence. The safety devices are automatically “locked out” while the door is closing (display shows **CL**) and while the latch check delay is running as well (display shows **LC**). Possible values are 1-9.9 seconds, default is 3 seconds.

**UL** **U**nLock delay. This delay should be set to insure that the lock retracts before the door begins opening. It is displayed in .01 second intervals, and possible intervals are 0.1 - 9.9 seconds. The default of 0.8 seconds is sufficient for most magnetic locks.

**AF** **Auxiliary Function.** This parameter defines the function of auxiliary input connector CN7. The default value of 1 enables CN7 to be used as a close monitor switch input. Setting **AF** to 2 allows this connection to be used for approach side sensors that function only as recycle/hold open devices (the devices are ignored when the door is closed). Setting **AF** to 3 allows this connection to be used for a safety beam input. Other values of **AF** are reserved and disable the CN7 input when selected.

**CT** **cycle test.** This cycles the door at regular intervals for testing. Default is off (do not cycle test).

**PG** **Push-n-G.** This automatically completes a cycle if someone begins pushing the door open manually. Default is off (no push-n-go). Also see the **d2** parameter.

**Cr** **Close recycle.** This recycles the door open if an obstruction is encountered prior to the door entering latch check. Default is on.

**SL** **Slow open speed.** This reduces all open speed settings by approximately 50%, allowing the use of very slow open speed if desired. Remaining speeds (open check, hold open, etc.) are not affected by **SL**. Default is off (use normal open speeds).

**LL** **Lock present.** When **LL** parameter is on, the control will trigger the lock relay prior to opening. It will attempt to unjam the door, if requested (see **UJ** and **UP** parameters), and will wait through the unlock delay (see the **UL** parameter) before opening the door. Default is off (no lock)

**HS** **Hold Strike.** If the **HS** parameter is left off, the lock will be released approximately 1 second after the door begins opening. This is normally the preferred setting, as it prevents burn out or buzzing of inexpensive electric strikes. **HS** is turned on, the lock will be held in the released condition for the total duration of the open cycle, the close cycle, and the latch check delay (see the **LC** parameter). Default is off (do not hold strike through open cycle).

**U1-3** **User Parameter 1-3.** These parameters adjust from 0-99 and are not used in any way by the control itself. They may be set to any data the installer wishes to save (month/year of installation, date of last service, technician code, etc).

**Next, we will complete the adjustments using the trim pots on the controller.**

**Caution:** The **LIMIT**, **OBST**, **CLS SPD**, and **LAT SPD** screwdriver adjustments are in close proximity to electrical components. ***Be careful to avoid contact with any parts while making adjustments.***

### **Closing Adjustments**

***! With power off***, physically inspect the latch check switch (switch with the blue, gray, and white wires) and its associated cam. *The arm of the latch check switch should remain depressed from the full open position until the door is approximately 10-15° from the full closed position, and then it must release.* Adjust the cam as necessary.

Next, adjust the CLS SPD (close speed) and LAT SPD (latch speed) pots for the desired closing operation. The door may be manually opened as many times as necessary to complete these adjustments.

### **Opening Adjustments**

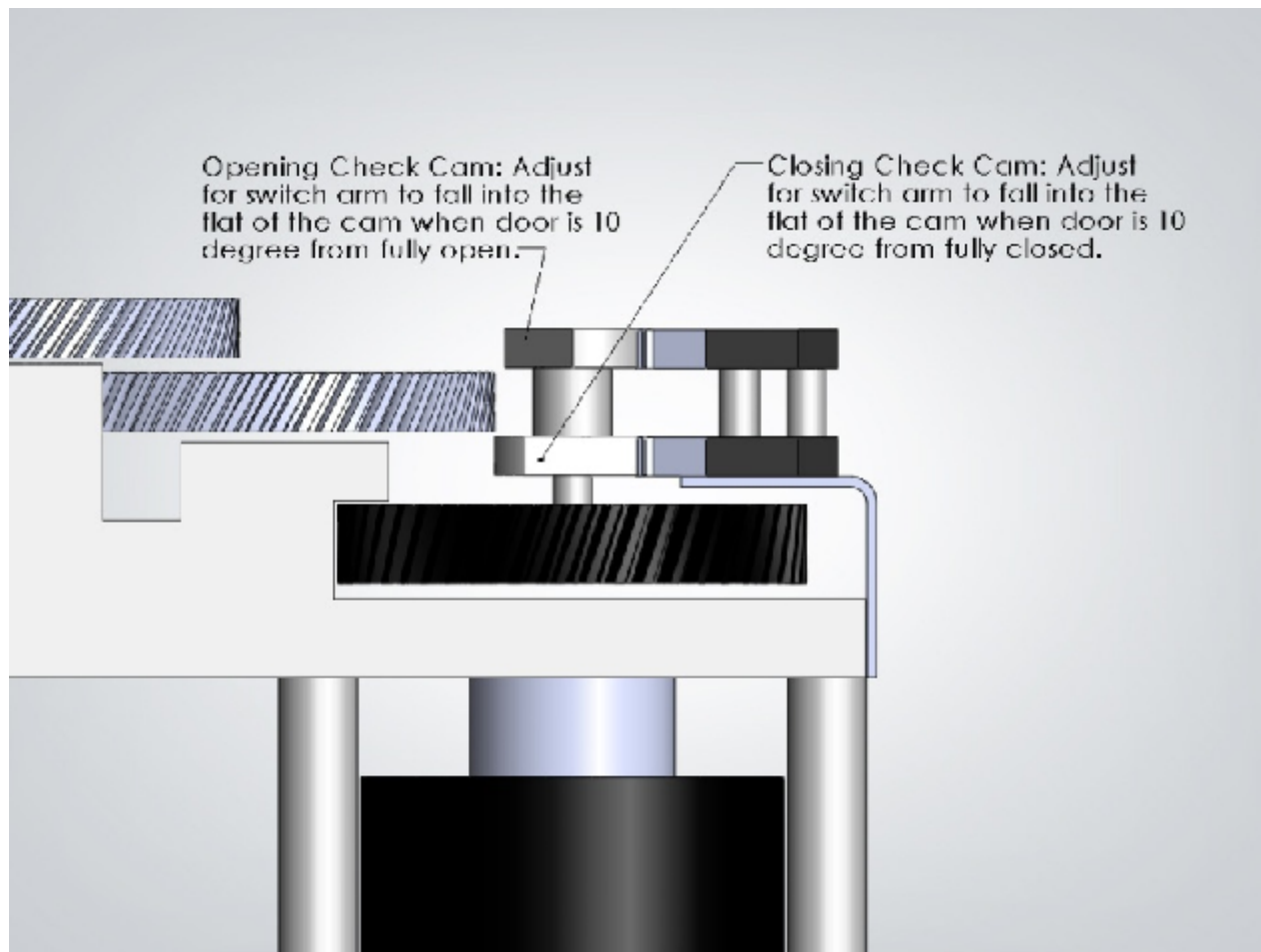
Physically inspect the open check switch (switch with orange and yellow wires) and its associated cam. *The arm of the open check switch should remain depressed until the door is approximately 30° from the full open position, and then it must release.*

**! IMPORTANT:** Do not proceed further until you have verified the adjustment of this cam.

Temporarily set both the LIMIT pot and the OBST pot fully counterclockwise. Ensure that the **Three Position Switch** is in the ON position.

Cycle the door by pressing and holding the DOWN button (this button functions as the actuate signal when the door is in normal operation, allowing easier testing). The door should cycle open. The display will show OS (Open Speed) before the open check switch releases. It will switch to OC (Open Check) in the open check zone. If the DOWN button is held long enough, the display will switch to HO (Hold Open).

When the DOWN button is released, the door will begin closing after the d1 time delay expires. Cycle the door several times using the DOWN button and check for proper operation. If any speeds or delays need to be changed, follow the instructions in Section Adjustment Procedure.

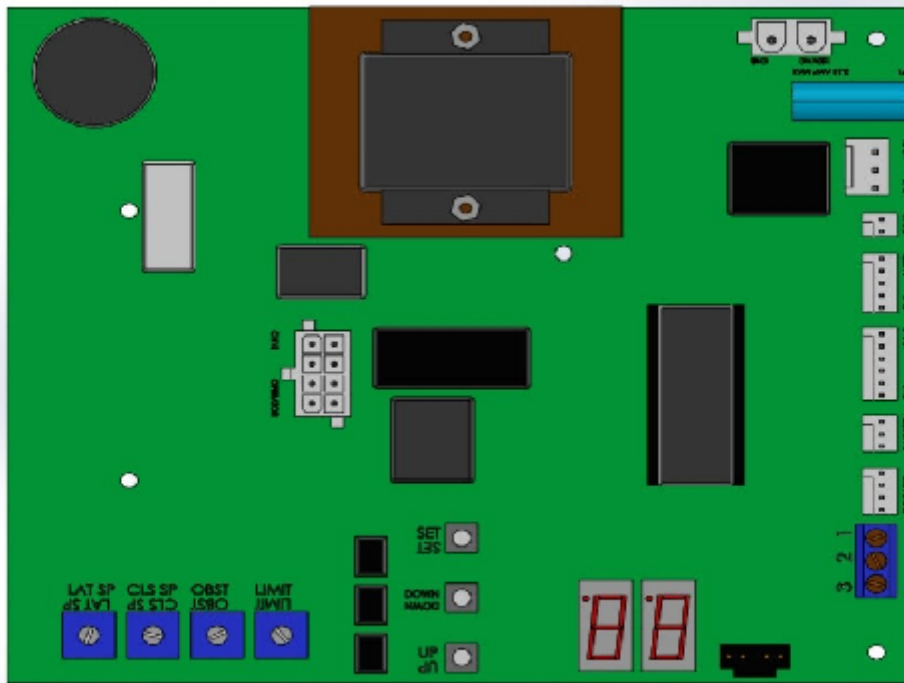


**NOTE: Properly adjusted cams can prolong the control and motor life.**

Note:

If the display is in the upper left corner of the circuit board as installed in the header (right hand) or is it in the lower right hand corner (left hand). If the display is in the upper left corner, press and hold the SET button while plugging the power connector back into CN9 on the control. If the display is in the lower right hand corner, press and hold the UP button while plugging in the power connector. This feature allows the display to read "right side up" regardless of the controls orientation in the header.





**LAT SP:** default position is fully counterclockwise.      **OBST:** default position is midway between counter clockwise & clockwise  
**CLS SP:** default position is fully counterclockwise.      **LIMIT:** default position is fully clockwise.

**Caution:** The following two paragraphs describe the limit and obstruction features of the control. The limit feature *must* be set properly for low energy applications. It is also highly recommended that the obstruction sensing be used for maximum pedestrian safety. The open speed and check speeds should be properly set before attempting to adjust the added safety features.

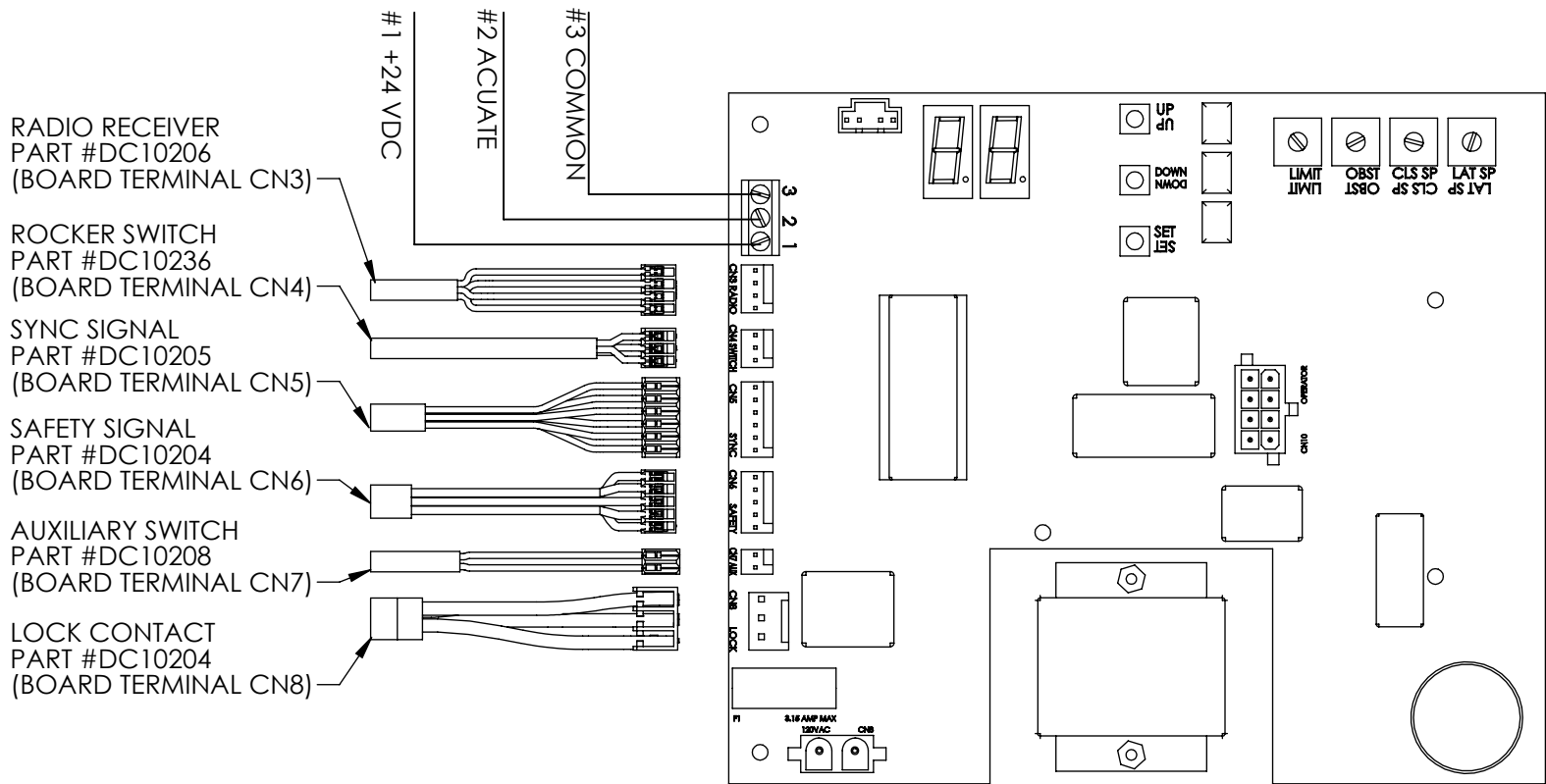
The limit function, when properly adjusted, allows faster open speed while maintaining safety by limiting the maximum torque output of the operator. Adjust the LIMIT pot clockwise to reduce the opening force to the desired maximum. Clockwise adjustment increases the limiting and reduces the force available.

The obstruction feature of the control, when properly adjusted, switches the door to a much lower hold-open force if an obstruction is encountered during door opening. Adjust the OBST pot clockwise sufficiently to obtain an obstruction response when an obstruction is encountered. When an obstruction is sensed, the display will switch from **OS** to **Ob (Obstruction)** and the control will switch to the hold open voltage. After a brief delay, the display will switch to **SS (Seek Speed)** and the door will creep the rest of the way open. After which normal operation will be restored. Set the Seek Speed just high enough to insure that the door creeps open following an obstruction response timeout. *Note: If the LIMIT adjustment is turned up to far, It may not be possible to get the obstruction response.*

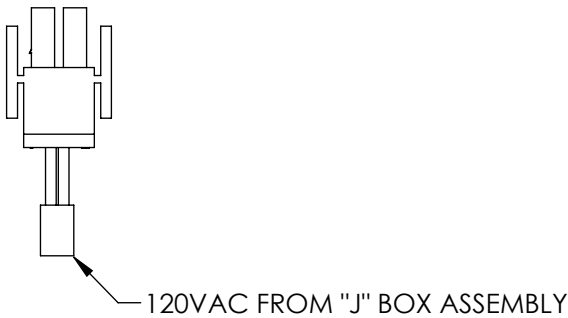
### **SPECIAL NOTES ON SYNCHRONIZED PAIRS**

- A six conductor synchronization harness is supplied with paired operators. It is strongly suggested that this harness be left unplugged until each door of the pair is set up properly and operating normally as an independent unit. The harness may then be plugged into SYNC connector CN5 on each control to synchronize the two doors.
- Connections to actuating and safety devices as well as the on/off/hold switch may be made to *either* control. It is not necessary to connect them to both.
- Due to the method used for synchronization. It is not possible to have different values for the standard display (**d1**) and the close recycle delay (**d3**). Delays **d1** and **d3** should be set to the same value in each operator, and must also be set identical on both operators. This restriction does *not* apply to single operators.

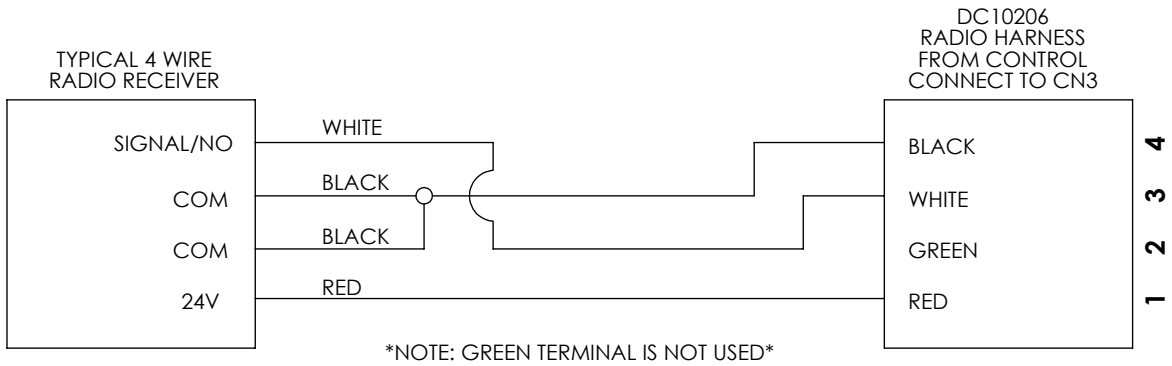
9. CONTROL ADJUSTMENTS AND WIRING DIAGRAMS



\*\* NOTE: AUXILIARY INPUT IS NOT SYNCED WITH OTHER INPUTS \*\*

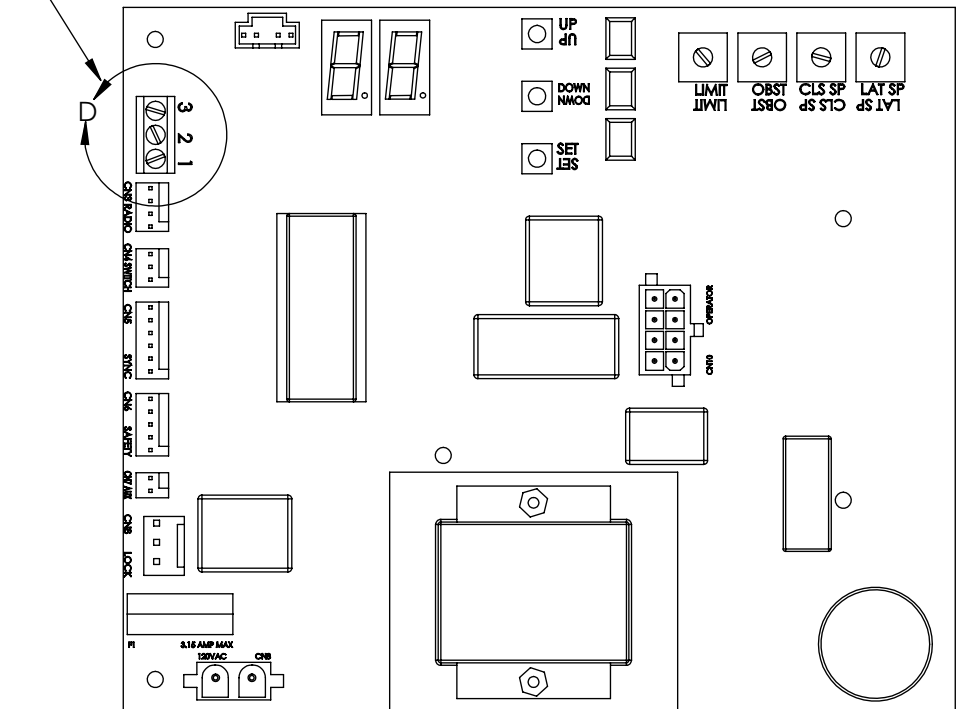
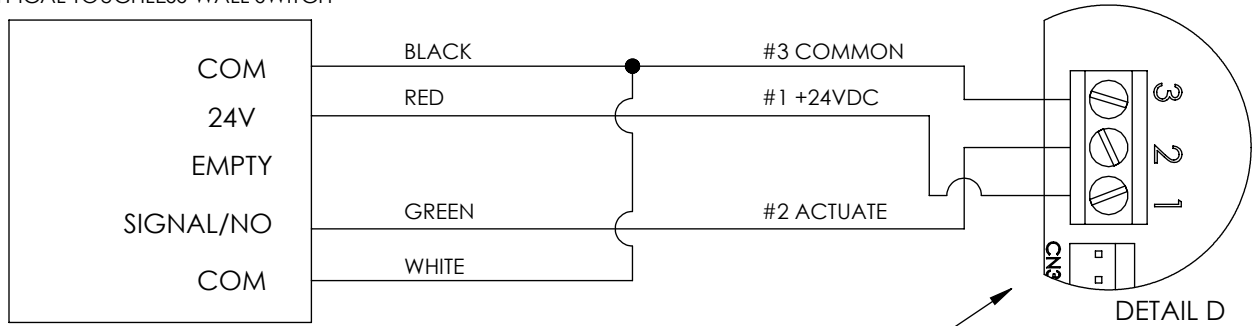


- COMMON RADIO RECEIVER WIRING -

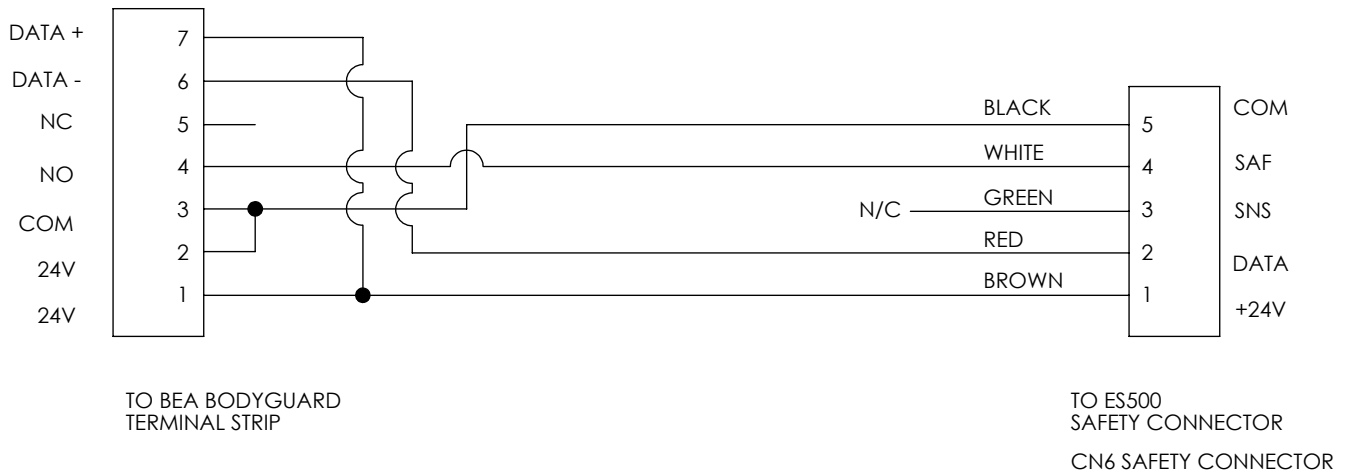


## TOUCHLESS WALL SWITCH

## TYPICAL TOUCHLESS WALL SWITCH



## BEA BODYGUARD WIRING



WIRE COLORS ARE FROM A600-0007-01 (DC10207)

BROWN= 1(24V) & 7(DATA+)

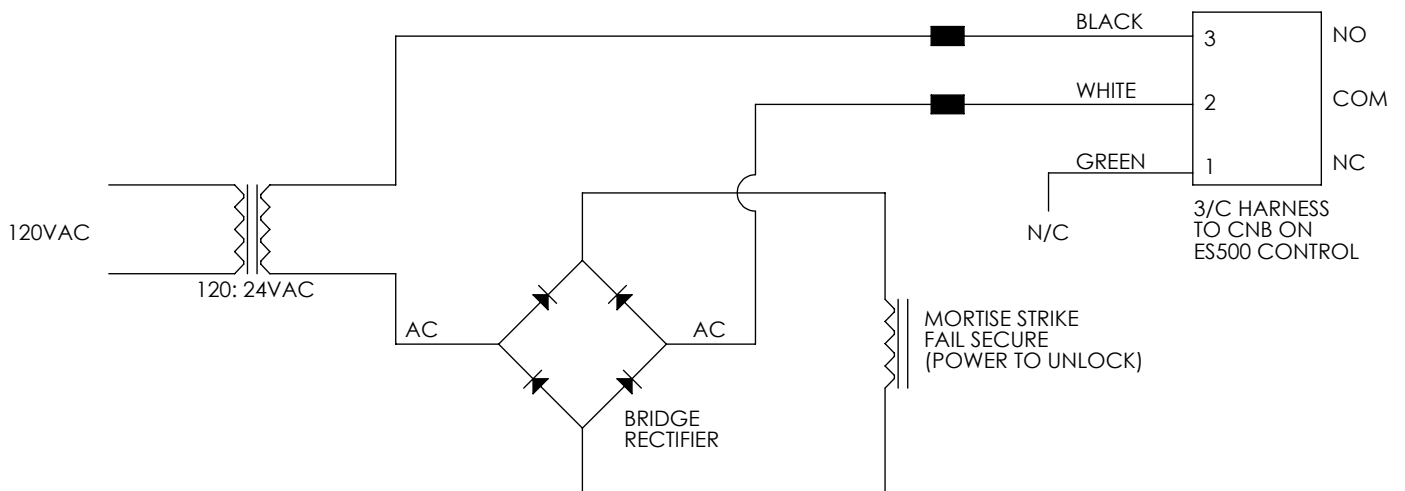
BLACK= 2(24V) & 3(COMMON)

WHITE= 4(N.O. SIGNAL OUTPUT)

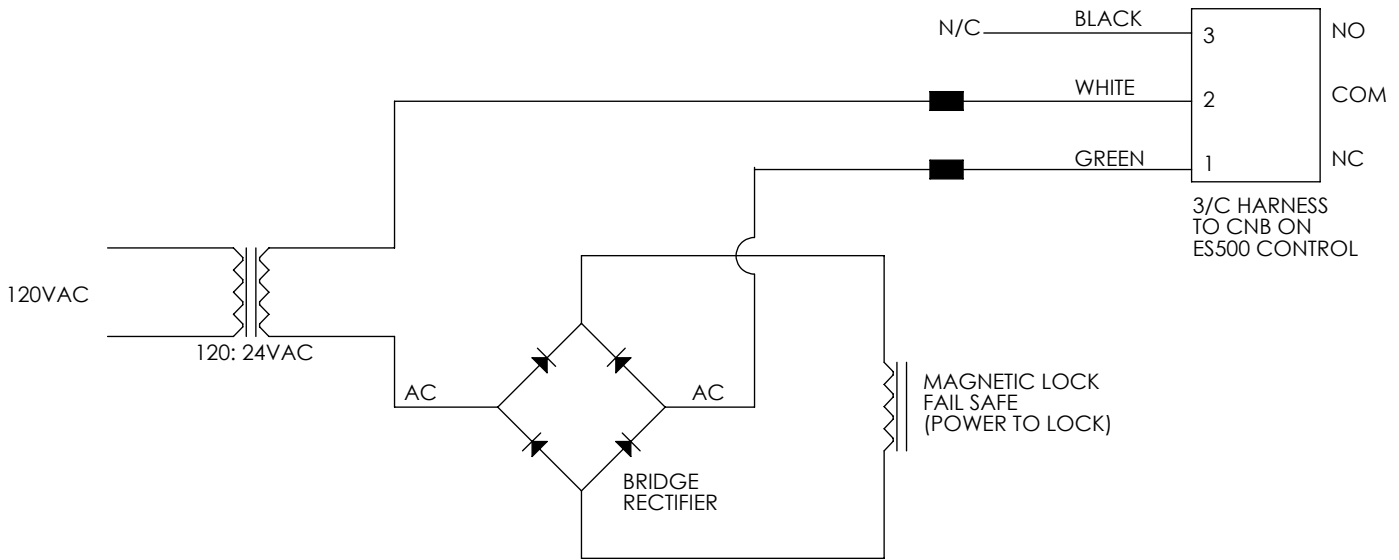
RED= 6(DATA-)

THE GREEN WIRE IS STOP-N-SEEK AND IS NOT CONNECTED

## ELECTRIC MORTISE STRIKE WIRING



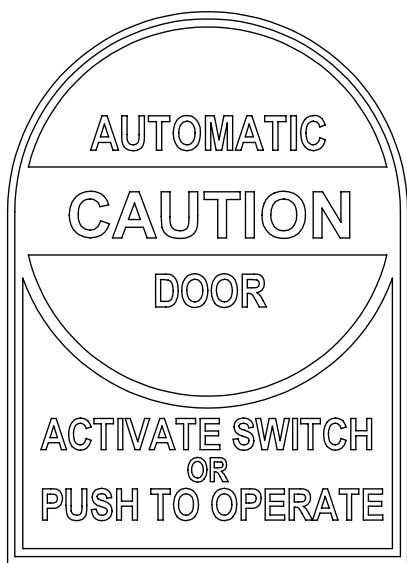
ELECTRIC MAGNETIC LOCK WIRING



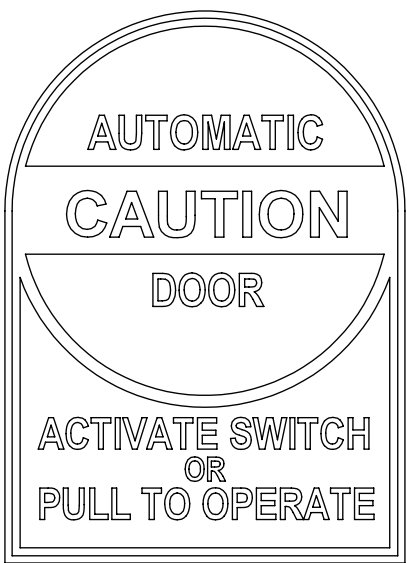
- NOTES FOR EITHER LOCK TYPE:
1. IF BRIDGE RECTIFIER IS NOT USED, A 47VAC 7mm VARISTOR (MOV) MUST BE WIRED DIRECTLY ACROSS THE LOCK COIL.
  2. TRANSFORMER IS FOR LOCK POWERING ONLY AND SHOULD BE SIZED ACCORDINGLY.
  3. PARAMETER LL MUST BE SWITCHED ON IN ES5500 CONTROL, OR LOCK WILL NOT OPERATE

10. PLACEMENT OF SAFETY DECALS

THE DECALS SHOWN BELOW ARE AVAILABLE OPTIONS.



PART #C7282  
FOR PUSH AND GO OPTION (LOCATE EACH SIDE OF DOOR)



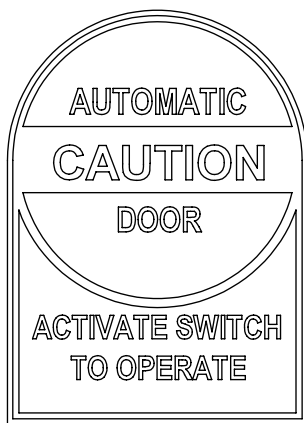
PART #C7281



PART #C1631-3  
FOR ONE WAY TRAFFIC (NON APPROACH SIDE)

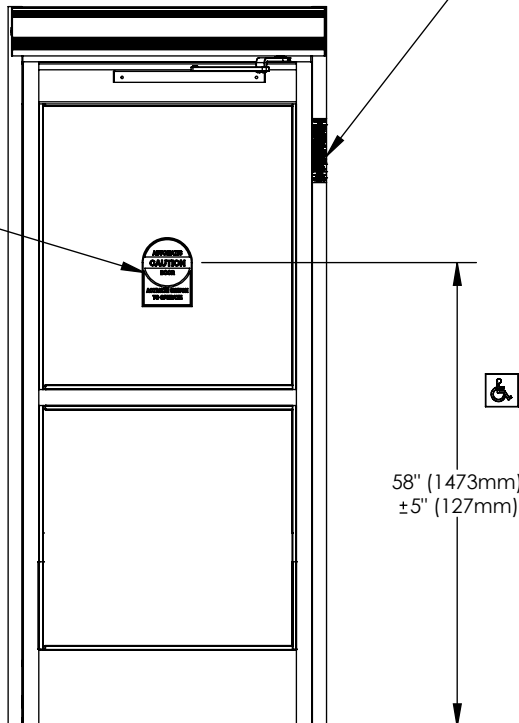
DECALS SHOULD BE A MINIMUM OF 6" IN DIAMETER AND BE VISIBLE FROM BOTH SIDES OF THE DOOR.  
APPLY DECALS AS SHOWN.

**NOTE:** DAILY SAFETY CHECK DECAL SHOULD BE ADHERED TO THE INTERIOR SIDE OF THE DOOR JAMB IN FULL VIEW.



PART #C7280

**NOTE:** THIS DECAL OR OPTIONAL DECALS SHOWN ARE REQUIRED TO MEET ANSI STANDARDS. THIS DECAL IS INCLUDED IN EACH DOOR PACKAGE. **DECAL IS TO BE CENTERED IN DOOR WIDTH.**



#### SAFETY INFORMATION Low Energy Swinging Doors

These minimum safety checks, in addition to those in the Owner's Manual, should be made each day and after any loss of electrical power:

1. Activate the door. Door should open at slow smooth pace (4 or more seconds), and stop without impact.
2. Door must remain fully open for a minimum of 5 seconds before beginning to close.
3. Door should close at slow, smooth pace, (4 or more seconds), and stop without impact.
4. Inspect the floor area. It should be clean with no loose parts that might cause user to trip or fall. Keep traffic path clear.
5. Inspect doors overall condition. The appropriate signage should be present and the hardware should be in good condition.
6. Have door inspected by an AAADM certified inspector at least annually.

**DO NOT USE DOOR** if it fails any of these safety checks or if it malfunctions in any way. Call a qualified automatic door service company to have door repaired or serviced.

See Owner Manual or instructions for details on each of these and other safety items. If you need a copy of the manual, contact the manufacturer.

**AAADM**  
American Association of Automatic  
Door Manufacturers

PLACE COMPLETED ANNUAL  
COMPLIANCE INSPECTION LABEL  
HERE

# 12. DC7000 Replacement Parts List

## Header Components

### Part # Description

DC7000ECP-B	DC7000 END CAP PACKAGE - BLACK
DC7000HCA	DC7000 HEADER COVER, CLEAR
DC7000BMA	DC7000 BACKMEMBER, CLEAR
DC7000HCB	DC7000 HEADER COVER, BRONZE
DC7000BMB	DC7000 BACKMEMBER, BRONZE
DC7000H-39A-LH	DC7000 39" HEADER CLEAR LH
DC7000H-39A-RH	DC7000 39" HEADER CLEAR RH
DC7000H-39B-LH	DC7000 39" HEADER BRONZE LH
DC7000H-39B-RH	DC7000 39" HEADER BRONZE RH
DC7000H-99A	DC7000 99" HEADER CLEAR( <b>Specify Length</b> )
DC7000H-99B	DC7000 99" HEADER BRONZE( <b>Specify Length</b> )
31CNSQZ	5/16-18 SQUARE NUT Z/P( <b>4 required per Operator</b> )
31C50KCS	5/16-18 Socket Cap Screw( <b>4 required per Operator</b> )

## Drive Components

DC7000-LI	DC7000 LH IN OPERATOR
DC7000-LIC	DC7000 OPER. LH IN W/CONTROL
DC7000-LO	DC7000 LH OUT OPERATOR
DC7000-LOC	DC7000 OPER. LH OUT W/CONTROL
DC7000-RI	DC7000 RH IN OPERATOR
DC7000-RIC	DC7000 OPER. RH IN W/CONTROL
DC7000-RO	DC7000 RH OUT OPERATOR
DC7000-ROC	DC7000 OPER. RH OUT W/CONTROL
DC7000-C	DC7000 CONTROL

## Harness Accessories

DC10204	DC7000 LOCK HARNESS 12" CN8
DC10205	DC7000 SYNC. HARNESS 60" CN5
DC10206	DC7000 RFF HARNESS 12" CN3
DC10207	DC7000 SAFETY HARNESS 12" CN6
DC10208	DC7000 AUX. SWITCH 12" CN7
DC10235	DC7000 POWER HARNESS, 120VAC
DC10236	DC7000 RCKR SW ASSY, ON/OFF/HO

## Arms

### Push

C4252-14A	OUTSWING ARM ASSY 14T CL
C4252-14B	OUTSWING ARM ASSY 14T BZ
C5254-1	CONNECTING ROD ASSY

### Pull

C4241-14A	PARALLEL ARM TRACK ASSY 14T-CL
C4241-14B	PARALLEL ARM TRACK ASSY 14T BZ
C4248-14A	PARALLEL ARM 14T CL
C4248-14B	PARALLEL ARM 14T BZ
C4556	DELFIN SLIDE BLOCK ASSY.
C4550	TOP TRACK & SLIDE BLOCK ASSY
C4265A	TRACK ASSY CL
C4265B	TRACK ASSY BZ