RollSeal SC-325M & SC-650M Controllers

Owners Manual

RollSeal
1733 County Road 68
Bremen, Alabama 35033
256-287-7000

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1. Warnings (Advertisements)

Warning!

Disconnect All Power Sources Before Installing This Equipment. Failure To Disconnect Power Source Can Result In Property Damage, Serious Injury Or Death!

Warning!

Dangerous Rotating Machinery!
Keep Hands, Clothing, Etc. Clear When Operating!
Do Not Operate Without All Guards And Covers In Place!

Warning!

All Wiring Should Be In Accordance with National Electrical Codes Or Other Local Codes.

Warning!

The Installer Is Responsible For Complying With All Relevant Regulations, Such As National Wiring Regulations And Accident Prevention Regulations. Particular Attention Must Be Given To The Cross-sectional Areas Of Conductors, The Selection Of Fuses Or Other Protection, And Protective Earth/Ground Connections!

Warning!

Drives Are Intended As Components For Incorporation Into Electrical Control Systems Or Machines. It Is The Responsibility Of The Installer To Ensure That The Drive Is Installed Safely And In Accordance With Any Regulations Which Apply To The End Product At The Place Of Use, For Example, Regarding Safety

Or Electromagnetic Compatibility. To Ensure Mechanical Safety, Additional Safety Devices Such As Electro-Mechanical Interlocks May Be Required!

Warning!

The Voltages In The Power Cables And Certain Parts Of The Drive Can Result In Death. Whenever The Drive Has Been Used, It Must Be Isolated And Disconnected For 5 Minutes Before Any Work Commences.

Danger!

Only Qualified Electrical Personnel Familiar With The Construction And Operation Of This Equipment And The Hazards Involved Should Install, Adjust, And/Or Service This Equipment. Read And Understand This Manual In Its Entirety Before Proceeding.
Failure To Observe This Precaution Could Result In Severe Bodily Injury Or Death!

Warning!

Item 4501-6312
(Warning Moving Door Label)
Supplied With Door,
MUST Be Installed
On Inside Of Cooler/Freezer
Beside Door Opening.

Proposition 65 Warning!

California Proposition 65 Warning: This product can expose you to chemicals, including Lead, which is known to the state of California to cause cancer or birth defects or other reproductive harm. For more information, go to www.p65Warnings.ca.gov/furniture.

IMPORTANT INSTALLATION INSTRUCTIONS

⚠ Warning!

To Reduce The Risk Of Severe Injury Or Death:

1. READ AND FOLLOW ALL INSTALLATION INSTRUCTIONS.
2. Do not connect the door operator to the source of power until instructed to do so.
3. Locate the control station: (a) within sight of the door, (b) at a minimum height of 5 feet so small children cannot reach it, and (c) away from all moving parts of the door. Remove all ropes and remove or make inoperative all locks connected to the garage door before installing opener.
4. For products having a manual release, instruct the end user on the operation of the manual release. Where possible, install the door opener 8 feet or more above the floor. For products having an emergency release, mount the emergency release within reach, but at least 6 feet above the floor and avoiding contact with vehicles to avoid accidental release.
5. Install Egress Handle, containing the egress instruction label/placard, on the control station (Open/Close Button) side.

IMPORTANT SAFETY INSTRUCTIONS

⚠ Warning!

To Reduce The Risk Of Severe Injury Or Death:

1. READ AND FOLLOW ALL INSTRUCTIONS!
2. Never let children operate or play with door controls. Keep the remote control (where provided) away from children.
3. Personnel should keep away from a door in motion and keep the moving door in sight until it is completely closed or opened. NO ONE SHOULD CROSS THE PATH OF A MOVING DOOR.
4. Test the door's safety features at least once a month. After adjusting either the speed or the limit of travel, retest the door operator's safety features. Failure to adjust the operator properly may cause severe injury or death. NEVER GO UNDER A STOPPED, PARTIALLY OPEN DOOR.
5. For products having a manual release, if possible, use the manual release only when the door is closed. Use caution when using this release when the door is open.
6. KEEP DOORS PROPERLY OPERATING AND BALANCED. See Door Manufacturer's Owner's Manual. An improperly operating or balanced door can cause severe injury or death. Have trained door systems technician make repairs to cables, spring assemblies, and other hardware.
7. Install the Entrapment Warning label next to the control button in a prominent location. Install the Emergency Release Marking. Attach the marking on or next to the emergency release.

8. After installing the opener, the door must reverse when it contacts a 1-1/2 inch high object (or a 2 x 4 board laid flat) on the floor.
9. SAVE THESE INSTRUCTIONS.

French Translated Warnings

⚠ Avertissement!

Disjoindre fournissent de l'énergie tout les sources avant qu'installer cet équipement. F|ailure| à disjoindre la source de pouvoir peut résulter dans dommage de propriété, blessure sérieuse ou mort !

⚠ Avertissement!

Mécanisme tournant dangereux !
Garder les mains, vêtissant, etcC|lear| quand fonctionner !
Ne fonctionnez pas sans toutes gardes et couvertures dans lieu !

⚠ Avertissement!

Tout montage sur fil de fer doit être selon codes électriques nationaux ou autres indicatifs régionaux.

⚠ Avertissement!

L'Installer est responsable pour conformer avec tout règlement pertinent, telles que règlement et règlement de prévention d'accident de montage sur fil de fer nationaux. Pl'attention articulaire doit être donnée pour les aires sectionnelles transversales de conducteurs, le choix d'elles fusées ou autre protection, et terre / prises de terre protecteur !

⚠ Avertissement!

Les promenades en voiture sont projetées comme composants pour l'incorporation dans les systèmes ou machines d'autorité électriques. Il est la responsabilité de l'installer pour assurer que la promenade en voiture est installé sans risque et selon tout règlement qui appliquer pour le produit fini au lieu d'utilisation, par exemple concernant sécurité ou la compatibilité électromagnétique. Pour assurer que sécurité mécanique, les dispositif de sécurité supplémentaires telle que de |electro| mécanique enclenche pouvoir être exigé!

⚠ Avertissement!

Les tensions dans le pouvoir câblent et certains parties de la promenade en voiture peuvent résulter dans la mort. Wle |henever| la promenade en voiture a été utilisé il doit être isolé et détaché pendant 5 procès avant que tout travail commence.

⚠ Danger !

Seulement familier électrique de personnel qualifié avec la construction et opération de cet équipement et les hasards ont enveloppé devoir installer, arranger, et/ou - la révision cet équipement. R|ead| et comprendre ce manuel en entier avant que procéder. F|ailure| à observer cette précaution peut résulter dans dommage corporel sévère ou mort !

⚠ Avertissement!

Point 4501-6312
(Avertissement Moving étiquette de porte)
Livré avec porte,
doit être installé à
l'intérieur du réfrigérateur / congélateur
côté Ouverture de la porte.

LES INSTRUCTIONS D'INSTALLATION IMPORTANTES

⚠ AVERTISSEMENT!

À réduire le risque de blessure sévère ou mort:

1. LU ET SUIVENT TOUTES INSTRUCTIONS D'INSTALLATION.
2. Ne liez pas l'opérateur de porte per la source de pouvoir jusqu'à instruit faire ainsi.
3. Localisez la station de commande: (a) en vue de la porte, (b) à un minimum la hauteur de 5 pieds ainsi petit enfants ne peuvent pas l'atteindre, et (c) loin de tous parties en mouvement de la porte.
4. Pour produits ayant un délivrance manuelle, instruire l'utilisateur final sur l'opération de la délivrance manuelle.
5. Installer la poignée d'évacuation, contenant l'étiquette d'instruction de sortie/plaque signalétique, sur le côté du poste de commande (bouton d'ouverture/fermeture).

RÈGLEMENTS DE SÉCURITÉ IMPORTANTS

⚠ AVERTISSEMENT!

À réduire le risque de blessure sévère ou mort:

LU ET SUIVENT TOUTES INSTRUCTIONS!

Jamais laisser fonctionner enfants ou mouvoir vivement avec les autorités de porte. Gardez la télécommande (où a fourni) loin des enfants.

Le personnel devrait garder loin une porte dans mouvement et subsistance la porte en mouvement dans vue jusqu'à est complètement fermé ou avoir ouvert. CES AUCUNS DOIVENT CROISER LE CHEMIN D'UNE PORTE EN MOUVEMENT.

Éprouvez les traits de sécurité de la porte au moins une fois par mois. Après qu'arrangeant la vitesse ou la fin de course, retest les traits de sécurité de l'opérateur de porte. Manque à arranger l'opérateur correctement peut causer blessure sévère ou mort.

Pour produits ai manuel la délivrance, si possible, utiliser la délivrance manuelle seulement quand la porte est fermée. Précaution d'utilisation à utiliser cette délivrance quand la porte est ouverte.

GARDER LES PORTES CORRECTEMENT QUI OPÈRE ET ÉQUILIBRÉ. Voir la porte fabricant propriétaire manuel. Un improprement qui opère ou balancé porte peut causer blessure sévère ou mort. Formez les technicien de systèmes de porte faitez les réparations per les câbles, réunions de source, et autre quincaillerie.

SAUVEZ CES INSTRUCTIONS.

2. Limited Warranty

All products are warranted to be free from defects in material and workmanship for a period of one (1) year or 100,000 cycles, whichever occurs first, from the date of purchase if installed and used in strict accordance with the installation instructions. Liability is limited to the sale price of any products proved to be defective or, at manufacturers' option, to the replacement of such products upon their return. No products are to be returned to the manufacturer, until there is an inspection and/or a return-goods authorization (RGA) number is issued.

All complaints should be directed first to the authorized distributor who sold the product. If satisfaction is not obtained or the name of the distributor is not known, write the manufacturer that appears below, directed to the attention of Customer Service Manager.

This limited warranty is expressly in lieu of any and all representations and warranties expressed or implied, including any implied warranty of merchantability or fitness for a particular purpose. The remedy set forth in this limited warranty shall be the exclusive remedy available to any person. No person has authority to bind the manufacturer to any representation or warranty other than this limited warranty. The manufacturer shall not be liable for any consequential damages resulting from the use of our products or caused by any defect, failure or malfunction of our products. (Some areas do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.)

This warranty gives you specific legal rights and you may also have other rights that vary from area to area.

Warrantor:
RollSeal
1733 County Road 68
Bremen, Al 35033
256-287-7000

3. Ratings and Specifications

Specifications	RS-500 Doors	RS-600 Doors
Part Number	6607-8110	6607-8111
Model Number	SC-325M	SC-650M
Power Supply	115 VAC 50/60 Hz Single Phase 230 VAC 50/60 Hz Single Phase	230 VAC 50/60 Hz Single Phase
Temperature Range	32°F - 115°F (0°C - 46°C)	
Inputs	10 Amps @ 115 VAC Single Phase or 6 Amps @ 230 VAC Single Phase	8 Amps @ 230 VAC Single Phase
Operational Power	3 Amps @ 115 VAC Single Phase or 1.5 Amps @ 230 VAC Single Phase	3 Amps @ 230 VAC Single Phase
Standby Power	0.2 Amps @ 115 VAC Single Phase or 0.1 Amps @ 230 VAC Single Phase	0.1 Amps @ 230 VAC Single Phase
Outputs	230 VAC Three Phase 1/4 HP	230 VAC Three Phase 1/2 HP

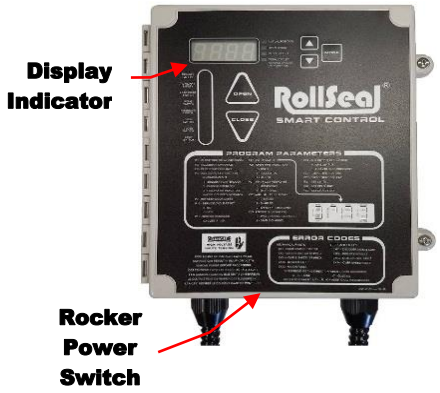
Optional Kit	
DOOR MOTOR: 230 VAC Three Phase, ¼ hp	
CONDENSATION MANAGEMENT SYSTEM (CMS):	Voltage Rating 230 VAC ± 10% 50/60 Hz Blower 135 Watt Heater 1200 Watt Total Current: 6.0 A @ 230 VAC (Typical) 9.0 A @ 230 VAC (Max.)

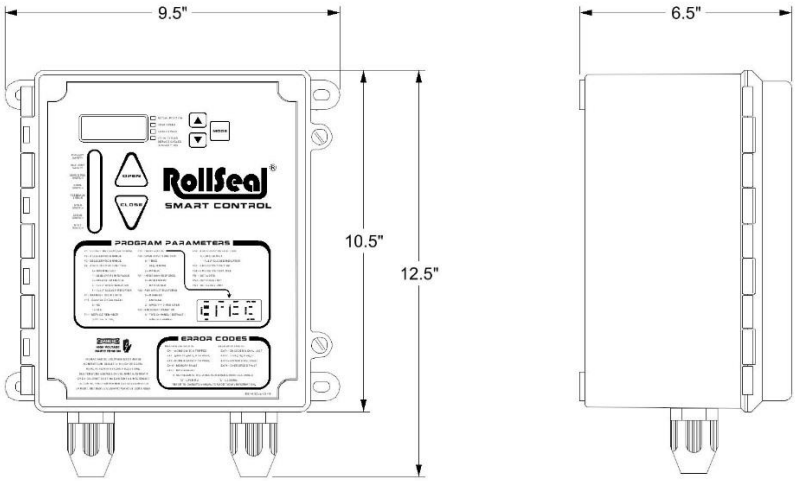
4. Introduction

The RollSeal SC-325M & SC-650M Smart Controllers are intelligent controllers manufactured specifically for the RollSeal RS-500 and RS-600 Automatic Doors. The Smart Controllers will provide safe opening and closing of the door by using a number of internal safety devices plus those features provided in the components of the automatic doors. The Smart Controllers can control the opening and closing speeds of the door, count the number of door orations, and provide status information for remote monitoring of the door position. In addition, the Smart Controllers can combine a number of auxiliary devices to improve the operability of the automatic doors such as:

- Remote radio controlled inputs for operating the door.
- Infrared sensors to detect the presence of personnel or machinery requiring passage through the door.
- Auxiliary lights or alarms that operate in conjunction with door opening or closing.
- The Smart Controllers are very versatile and simple to operate. The controls are easily operated from the front panel.

SC-325M & SC-650M Controller





4.1 How the Smart Controllers Communicate with the RollSeal Automatic Doors.

Inside the upper right housing of the RollSeal Automatic Door is an encoder that sends electrical pulses to the Smart Controller when the door is moving and the controller is in the normal operating mode. The controllers refer to the position of the door in units of "Counts", which is based upon the number of encoded pulses that the encoder sends to the controller.

NOTE: The term Position Units is used throughout this document and refers to the position of the door in units of Counts.

A Count of zero is assigned to the full open position where the Home Switch operates, and the highest count is assigned to the full closed position. The maximum number of counts that the controller will read will depend upon the particular installation. In general, a count is approximately equal to 1/8 inch of door movement. Several of the parameters of the controller are displayed in units of Counts, such as the Actual Position, Open and Closed Limit Positions and the Acceleration and Deceleration Ranges.

5. Smart Controller User Interface

5.1 The Power Switch

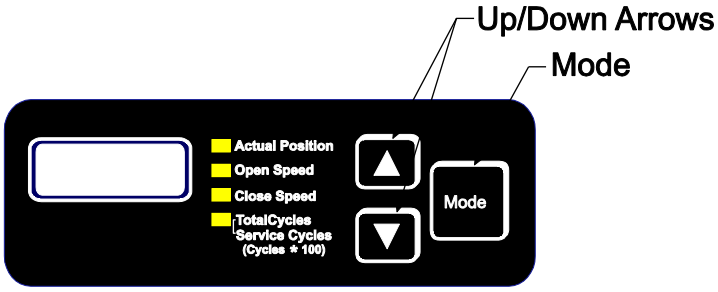
The Power Rocker Switch of the Smart Controller is located on the bottom of the controller box as illustrated on the previous page. The switch controls power to the Smart Controllers and to the automatic doors.

⚠ Warning!

DO NOT Turn The Power ON Until All Of The Following Items Are Completed:

- All Wire And Cable Connections Are Completed.
- The Voltage Selection Switch Is Set To Match The Required Supply Voltage.

The Display Indicator can show four different types of readings that can be selected by pressing the ***Mode*** button on the Display. Each time the ***Mode*** button is depressed the display steps to the next parameter as indicated by the green LED next to the display.



The four readings on the Display Indicator selected by using the ***Mode*** button are:

Actual Position – The position of the door curtain in relative position units called Counts. A low Count reading indicates that the door is at the top or open position. The highest Count reading is when the door is at the bottom or closed position.

Open Speed – The percentage of full speed that the door will open. The full speed will depend on the type of drive motor installed. This can be changed from a low of 20 percent to a high of 100 percent.

Close Speed – The percentage of full speed that the door will close. The full speed will depend on the type of drive motor installed. This can be changed from a low of 20 percent to a high of 75 percent.

Total Cycles – The total number of times (cycles) that the door has been opened and closed. The value displayed is in units of 100 cycles. For example a reading of 20 means that the door has been operated between 2000 and 2099 times.

Service Cycles – The number of times (cycles) that the door has been opened and closed since the last service reset. The value displayed is in units of 100 cycles. For example, a reading of 20 represents between 2000-2999 cycles. This cycle count is used for service purposes. Refer to **Section 6.1** for information on how to reset this count and how to set Service Reminders.

To view each of the four parameters, press the ***Mode*** button repeatedly until the green LED on the Display Indicator shows the desired parameter to be read or changed. Use the ***Up/Down*** arrows to adjust the Speed percentage to the desired setting. To read the number of times the door has been cycled, press the ***Mode*** button until the green LED beside Cycles (x100) is lighted. To return to the Actual Position, press the ***Mode*** button again, or wait a few seconds and the controller will automatically return to displaying Actual Position.

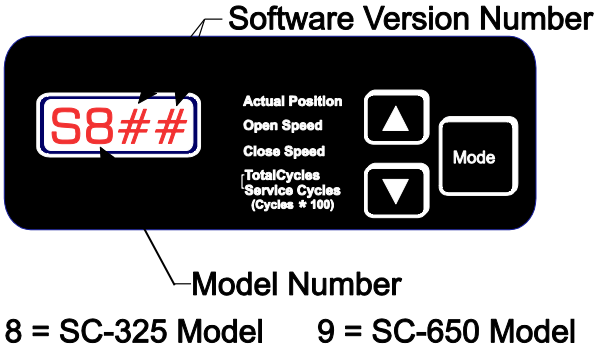
There is an LED on the Display Indicator that will light when the Safety beam is interrupted. See **Section 5.2.7** for more discussion on the function of the Safety Beam.

5.2 Interpreting the Display Indicator

In addition to the readings that can be selected by using the ***Mode*** button, the Smart Controller will occasionally display other readings on the Display Indicator that can show the operating status of the controller. This section describes some other types of displays that will occur in the normal operation of the controllers.

5.2.1 Software Version and Model Number

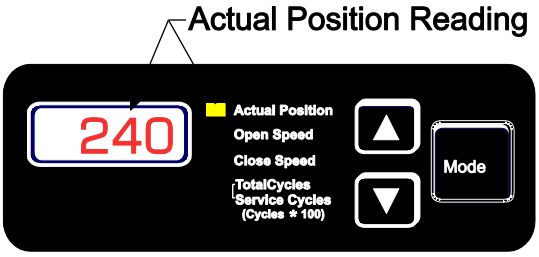
When the Smart Controller is turned off and subsequently on again, the Display Indicator will flash the current software version and model number in the display. This will remain on the display about two seconds. Then the display will show the Actual Position of the door.



8 = SC-325 Model 9 = SC-650 Model

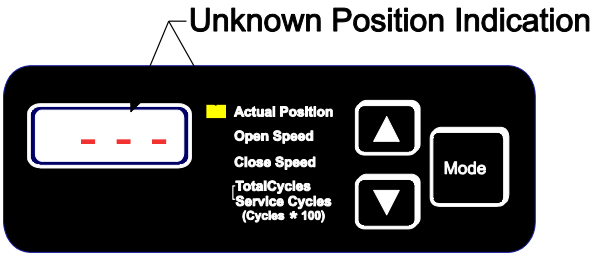
5.2.2 Actual Position Reading

When displaying the actual position of the door, the Display Indicator will appear similar to the diagram on the right. In the example shown, the door is in a position of 240 counts.



5.2.3 Unknown Position Indication

There are occasions when the controller may not know the exact position of the door, for example, when returning from the Jog Mode. In these cases the Display Indicator will display a series of three bars as shown at the right. This is known as the Unknown Position Indication. When the door is actuated, the door will proceed to the full open position, however the speed of the door will be reduced. When the door has returned from the home switch position to the open limit position, the display will show the actual position of the door. This indicates that the door has reset its position and is ready for normal operation.

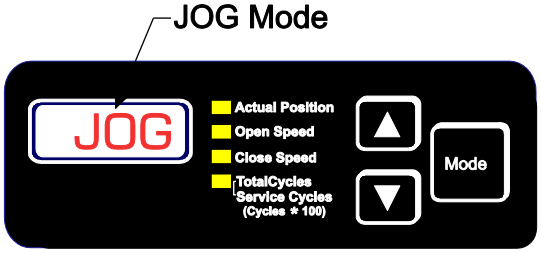


5.2.4 Assumed Position Indication

When the controller is first turned on, the display will flash between a numerical actual position reading and the unknown position indication. This flashing indicates the controller has assumed the current position of the door. When the control button is pressed, the controller will open at full speed to the open limit of the door. Then the door will proceed to the Home switch to verify the position reading and return to the open limit position. This operation takes place to verify that the door was not manually adjusted during the time that power was removed from the controller.

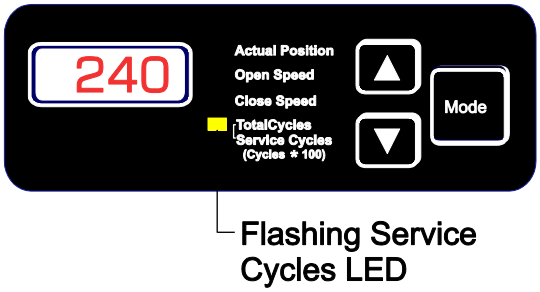
5.2.5 Jog Mode Indication

When the Smart Controller is in the Jog Mode, the display will indicate "**J O G**" as shown at the right. See **Section 7** for a description of the Jog Mode.



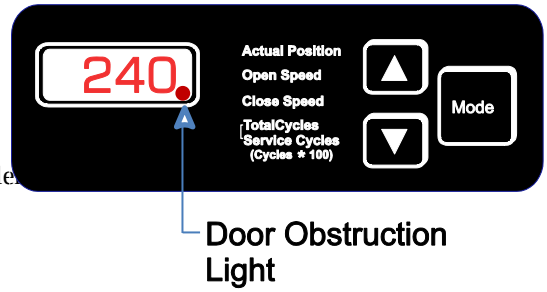
5.2.6 Service Reminder Indication

When the Smart Controller has exceeded the selected Service Cycle Limit, the Service Cycles LED will begin flashing to indicate that service is needed. See **Section 6.1 P10 and P11** for a description of the Service Cycle Reset and Service Reminder.



5.2.7 Safety Beam

The Smart Controller uses an invisible safety beam near the bottom of the automatic doors to prevent the door from closing on an object that has moved into position under the door. If an object interrupts this beam of invisible light, the door will stop and the Door Obstruction Light in the controller display will light. The door may then proceed to open.



5.2.8 Leading Edge Switch

The door is equipped with a Leading Edge Switch. This switch works in conjunction with the safety beam. Its function is to provide a back-up for the safety beam. If anything comes in contact with the leading edge of the panel, the door will react in the same manner as the safety beam.

5.2.9 Home Switch

The RollSeal automatic doors contains a Home limit switch for determining the "Home" or full open position of the door. When the door is fully opened the Home limit switch is triggered to stop the door. At this position the actual reading on the Display indicator will be zero (0). The Smart Controllers also use the operation of the Home switch to verify the position of the door.

6. SC-325M and SC-650M Initial Setup

PROGRAM PARAMETERS		
P1 - Close Time Delay (Seconds) **P3** - Deceleration Range **P4** – Warning Output Function 0 – Door Movement or Door about to Close 1 - Sequential Interlock 2 - Passive Interlock 3 - Door Open Indication 4 - Door Closed Indication		**P7** - Refresh Door Limits **P10** - Service Cycle Reset 0 - No 1 - Yes **P11** - Service Reminder (Cycles x 100) **P12** - Input Status **P20** - Open Input Function **P21** - Input Switch Response **P23** - Encoder Operation **P24** - CMS Output Function **P25** - CMS On-Time **P26** - CMS Off-Time **PS1** - Setup Door Limits **PS2** - Set Open Limit **PS3** - Set Close Limit

6.1 Program Mode

Settings that are usually set up when the Smart Controller is installed or adjusted are referred to as Program Parameters. To get to the Program Mode, press and hold the Mode button for at least five seconds. When the controller has entered the Program Mode, the display will flash between P1 and the current value of the program parameter. All the program parameters have a program number assigned to them. When in the Program Mode, the current displayed parameter can be changed by pressing the Up (△) or Down (▽) arrows. When the current parameter has been set, press the Mode button to move to the next parameter. The Program parameters are:

P1 - Close Time Delay – Default set to 45 (May be adjusted. See Below)

This is the time that the controller waits before automatically closing the door. Close Time Delay only applies when the door has been opened using the Timed Input. All safety sensors must be cleared before the controller begins counting the Close Time Delay. To change the value of P1, Press the ***Up*** (△) arrow to increase the delay and the ***Down*** (▽) arrow to decrease the delay. The Close Time Delay can be adjusted between 5 and 240 seconds.

P3 - Deceleration Range - Default set to 0

The method for determining the deceleration range was changed from previous versions and therefore P3 has a different effect on the deceleration range that the controller uses. The controller automatically sets the minimum deceleration range based on the programmed Open and Close speeds. If that deceleration proves to be inadequate, then P3 allows the user to increase that range. The default setting will be zero and it should stay zero unless the door has problems stopping the door at the set limits.

P4 - Warning Output Function

The P4 setting can be configured to operate in 1 of 4 modes.

Mode 0 will indicate door movement or warn that door is about to close.

Modes 1 and 2 - Interlocks
Interlock two doors together when wired properly

The interlock mode 1 or 2 features only apply when the doors are actuated through the "Directional" input signal (See Wiring Diagram **12.2).** It is important to note that setting this parameter to 1 or 2 will reconfigure the "Manual" input and the "Warning" output for interlock operation. Therefore using Interlock Modes 1 or 2, the switches will not be able to be used for their normal purposes as described in **Section** 8.

Mode 3 Door Open Indication to monitor fully OPEN.

Mode 4 Door Close Indication to Monitor fully CLOSED.

0* = *Door Movement/Door about to Close

The Warning Output can be used to indicate door movement or warn that the door is about to close.

1 = Sequential Interlock

The Warning can be used to Sequentially Interlock two doors together. In this case, it is a sequential interlock where the opening of Door #1 will hold Door #2 closed but the closing of Door #1 will immediately initiate the opening of Door #2 and vice-versa.

NOTE: Either door can initiate the cycle allowing for two-way traffic.

2 = Passive Interlock

The Warning Output can be used to Passively Interlock to doors together. In this case, when Door #1 is open Door #2 will not be allowed to open and vice-versa.

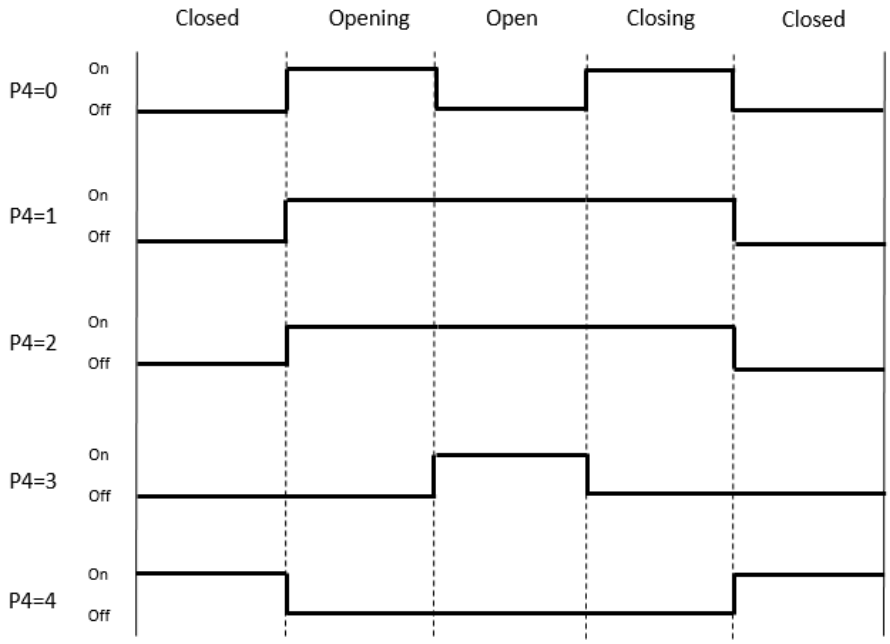
3 = ***Door Open Indication***

The Warning Output will be used to signal when the door is fully "open" for monitoring purposes.

4 = ***Door Closed Indication***

The Warning Output will be used to signal when the door is fully "closed" for monitoring purposes.

P4 Auxiliary Relay
Status (Door\ Status)



⚠ Warning!

When P4 Is Set To 1 or 2, The Functions Of The "Manual" Input Or The "Warning" Output Are Reconfigured For Interlock Operation And Can Not Be Used For Their Normal Functions.

P7 – Refresh Door Limits – Default Set to 25

This parameter is associated with the Open and Close Limits programmed into the door. These limits are determined using an encoder and they are referenced off of the Home Sensor/Switch located in the door header. From time to time, the Open and/or Close Limits may drift due to the nature of the encoder. This setting allows the user to set a number of Open & Close cycles before the door refreshes its limits by going back to its Home reference. This value can be set from 1 to 25. One means it will refresh every time it opens; Twenty-five means it will refresh every 25th time it opens.

P10 – Service Cycle Reset

This parameter provides a means for a service technician to reset the Service Cycle Count. This provides a means to track cycles in an effort to properly maintain the door system. If you desire to reset the Service Cycle Count, you must change P10 from "NO" to "YES" by pressing the ***Up*** (△) arrow button. To complete the reset, you must then depress the "***MODE***" button.

P11 – Service Reminder – Default Set to 240

This parameter works in conjunction with P10 to provide a means for the controller to visually remind the service technician when it is time for service. The user can set a Service Cycle Limit in this parameter. The limit (displayed number from 10 to 240) shown is "Cycles x 100" just as the cycle counts are displayed. This parameter is constantly compared to the value in "Service Cycles". Once the "Service Cycles" is greater than or equal to "Service Reminder", the "Cycle LED" on the controller interface will begin blinking indicating that service is needed. EXAMPLE: If the P11 displayed value is 10, the "Cycle LED" on the controller interface will begin blinking after the door has operated 1000 cycles.

P12 – Input Status

This parameter is used only to service or troubleshoot the door. The various inputs are represented by LED segments on the display. *Available on Software versions V0.21 and later.
Refer to **Section 9**.

P20 – Open Input Function

The Open Input can be programmed to operate the door in 1 of 3 methods

0. Timed Open – In this mode, the open switch will function in the same manner as the timed input. If pressed, it will open the door and then initiate a timed close cycle.
1. Manual/Sequential Operation – In this mode the open switch will function in the same manner as the manual input in which the operation will toggle between open and close each time the switch is pressed. This provides the user with the means to operate the door in both directions using a single switch.
2. Normal Operation – In this mode the open switch will only initiate a single open cycle for each depression.

P21 – Open Input Function

This setting selects whether the Open and Close switch response is Momentary (0) or Maintained (1). If maintained, the switch must be held during the entire open or close cycle for the door to operate.

P23 – Encoder Operation

This parameter allows the user to set the door to just use one encoder channel in the event one of the encoder channels stops working. The default setting is for using two channels (0) and it is only recommended to use one channel (1) if absolutely necessary. Using one channel will result in the door not being able to accurately keep its open and close limits.

P24 – CMS Output Function

This parameter allows the user to program the function for the CMS output.

0 = (Default) Output to control CMS for freezer applications. Relay status solely based on P25 and P26 settings.

1 = Indicates when the door is fully closed.

P25 – CMS On Time (minutes)

P26 – CMS Off Time (minutes)

IF P24 = (0):

P25- "CMS Mode" Auxiliary ON Time – Default Set to 15

If P24 = 0, this setting, along with P26, allows the user to cycle the fan & heater On & Off. Since not all applications are the same, some will not require as much help eliminating condensation while others may require more. This setting, along with P26, allows the user to operate the unit as efficient as possible.

P26- "CMS Mode" Auxiliary OFF Time – Default Set to 10

This setting works in conjunction with P25 to complete the On/Off cycle of the condensation removal system.

****15 On and 10 Off are the default settings for the duty cycle. The cycles may be increased or decreased according to specific environment conditions.****

PS1 – Change Program Limits

This parameter can be either "Yes" or "No". To change the Open Limit (PS2) or the Closed Limit (PS3) set this parameter to "Yes" and then proceed by pressing the ***Mode*** button. To leave the programming mode at this time, set PS1 to "No" and press the ***Mode*** button. The controller will exit the programming mode and return to displaying the actual position.

PS2 – Set Open Limit – Default set to 25

When the ***Mode*** button is pressed after setting PS1, the door will open to the position of the Home switch then proceed toward the current setting of the Open Limit. Use the Up and Down arrows to set the door to a new Open Limit position. Then press Mode to proceed to the next parameter.

PS3 – Set Closed Limit - Default set to 400 (Must Be Lower To Seal At The Bottom)

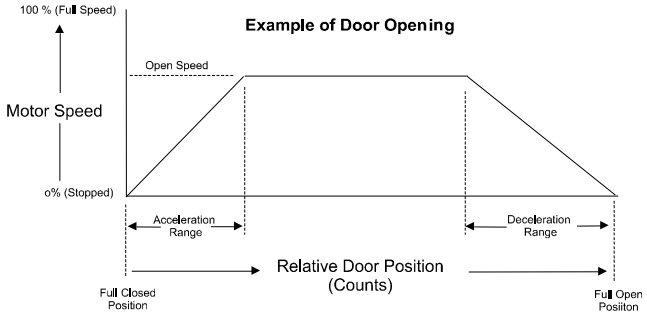
When the ***Mode*** button is pressed after setting the Open Limit, the door will close to the current setting of the Closed Limit. Use the ***Up*** (△) and ***Down*** (▽) arrows to set the door to a new Closed Limit position. Then press ***Mode*** to exit the programming mode and return to displaying the actual position.

6.2 Acceleration and Deceleration Range

The Smart Controllers measure the position of the door in Relative Position Units called counts. (See **Section 4.1**.) Counts are read from the door encoder and transmitted to the controller as electrical pulses. Counts begin at zero when the door is open and get higher as the door is closed. Acceleration range is measured in time and Deceleration range is measured in Counts.

The Smart Controllers have programmable adjustment for the Deceleration Range. Deceleration range can be adjusted by setting the program parameter P3. See **Section 6.1** for the procedure to set this parameter.

The acceleration range is measured in units of time (An inch every 10 milliseconds) When the door is initiated, it is loaded with the minimum speed of 20%. This speed will be increased every 10ms until it reaches the Open or Close speed depending on the direction of travel.



The controller establishes a minimum deceleration range based on the speed that the door is travelling when it begins to stop. P3 is now a range that can be used to increase the total deceleration range over the minimum that the controller calculates. In other words, if the door is travelling at 100% speed when it determines that it is time to stop, the deceleration range will be set to 100 plus whatever is set in P3.

The Deceleration Range is measured in units of counts and is the range over which the door will decelerate from the open or close speed to a stopped position. Typical values for the Acceleration Range are 40 counts and for the Deceleration Range is 80 counts.

These ranges are illustrated in the shown graph for the case of opening the door. From the full closed position, the door accelerates to the open speed during the Acceleration Range then slows during the Deceleration Range to the open position.

6.3 Door Setup

⚠ Warning!

DO NOT Turn The Power ON Until All Of The Following Items Are Completed:

- **All Wire And Cable Connections Are Completed.**
- **The Voltage Selection Switch Is Set To Match The Required Supply Voltage.**

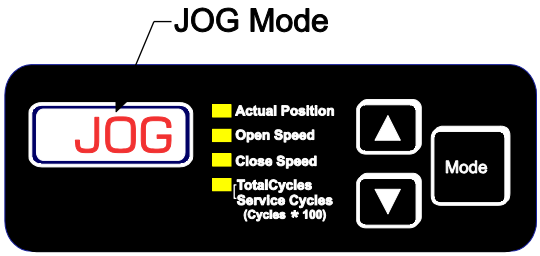
The door limits are used to adjust the door position in the full open and closed positions. To set the door limits, use the following steps:

1. Depress the ***Mode*** button (●) for at least 5 seconds. P1 (Close Time Delay) will be then be displayed in the Display Indicator.
2. Depress and release the ***Mode*** button until PS1 (Change Program Limits) is displayed.
3. Depress ***Up*** (△) until "yes" is displayed.
4. Depress the ***Mode*** button again (●). PS2 (Set Open Limit) will be displayed.
5. The door will proceed to the open limit and then stop. Once the door stops, adjust open limit using the ***Up*** (

△) or ***Down*** (▽) buttons until open limit is satisfactory.

6. Depress the ***Mode*** button (●) again. PS3 (Set Closed Limit) will be displayed.
7. The door will proceed to the closed limit and then stop. Once door stops, adjust this limit using the
8. ***Up*** (△) or ***Down*** (▽) buttons until the close limit is satisfactory.
9. Depress the ***Mode*** button (●) again and the controller will exit the programming mode and return to displaying the actual position.
10. The setup is now complete.

7. Jog Mode



The Jog Mode will permit an operator to manually control the position of the door with the ***Up*** (△) and ***Down*** (▽) arrow buttons. To enter the Jog Mode, press both the ***Up*** (△) and ***Down*** (▽) arrows

at the same time for at least 5 seconds. The Smart Controller will indicate the Jog Mode in the display as shown below.

In the Jog Mode the door can be opened and closed and is not affected by the Home limit switch or the Safety beam. Therefore, the operator must carefully watch the door movement when nearing the full open and full closed positions. To exit the Jog Mode, press and hold the ***Up*** (△) and ***Down*** (▽) arrow buttons for at least 5 seconds.

The controller will return to the normal operating mode with the Actual Position shown in the display. When returning to the normal operating mode, the controller will not know the exact position that the operator has left the door when exiting the Jog mode. Therefore, the controller will display a series of three horizontal bars. Upon the next command the door will slowly proceed to the full open position to reset its memory. The door will always follow this procedure after exiting the Jog Mode.

8. Door Activation Methods

There are three types of operator switches that can be connected to the Smart Controllers for opening and closing the automatic doors. These include a directional switch, a sequential switch and a timed switch. These switches can all be connected simultaneously to the controller.

	Manual Activated	**Timed Activated**	**Open Activated**	**Close Activated**	**Stop Activated**	**Notes**
During the specific operation below…..						
TIMED Opening	N/A	N/A	N/A	N/A	Stops Door after 1-2 Seconds	
TIMED Closing	N/A	Reopens Door & Starts Delay	N/A	N/A	Stops Door (Immediately)	
During TIMED Countdown	Closes Immediately	Restarts Time Delay	Exits Time Delay	Closes Door	Should Terminate Timed Cycle	
MANUAL Opening	N/A	N/A	N/A	N/A	① Stops Door after 1-2 Seconds	① When Stop is pressed & door stops, pressing the Manual button again will cause the door to reverse direction at that point.
MANUAL Closing	N/A	Opens then starts Time Delay	N/A	N/A	① Stops Door (Immediately)	
While Completely Open (after MANUAL)	Closes	N/A	N/A	Closes Door	N/A	
While OPENing	N/A	N/A	N/A	N/A	Stops Door after 1-2 Seconds	
While CLOSing	N/A	Reopens door & starts Time Delay	N/A	N/A	Stops Door (Immediately)	

8.1 Directional Switch Input

Three Position Operator Switch

The directional switch input is primarily for use with a three position direction switch similar to the one illustrated below. Operation is simple. Momentarily push "OPEN" to open the door, momentarily push "CLOSE" to close the door and momentarily push "STOP" to stop the door. However, the SC-325M and SC-650M controller can be programmed to perform special events with these directional switches.

For example, if the 'STOP" button is pressed and held, the door will remain in the stopped position. None of the other control switches will operate as long as the "STOP" connection to the controller is completed. Similarly, if the "OPEN" button is pressed and held, the door will remain in the open position. And, if the "CLOSE" button is pressed and held, the door will remain in the closed position. These features would be useful if an operator wanted to "lock" the door in a particular position with the use of external switches connected in parallel with the directional switch.

For safety reasons, these directional buttons have a priority built into the controller in case one or more of the buttons are closed at the same time. The "STOP" switch has first priority, the "OPEN" has second priority and the "CLOSE" has third priority.

Section 13.2 shows the connections for the directional, manual and timed switch inputs to the controller.

8.2 Manual (Single) Switch Input


Singe Position Operator Switch

This switch provides a conventional means of connecting a single button that responds to each momentary press sequentially. For example, if the last movement of the door was in the open direction and the manual input is made, the door will attempt to close. Conversely, if the last movement of the door was in the close direction and the manual input is made, the door will attempt to open. If this single position manual switch is used with the three position directional switch as discussed above, the manual switch has fourth priority.

Section 13.2 shows the connections for the directional, manual and timed switch inputs to the controller.

NOTE: This input will be reconfigured for use with the Interlock circuit if the P4 setting is programmed to anything other than zero. See Setting P4 under Section 6.1 for more information.

8.3 Timed Switch Input

The timed switch is intended for auto closure of the door and is typically used with motion detectors, floor loops, or pull cord switches. The timed feature would be used when, for example, a vehicle (i.e. forklift) would open the door by means of a floor loop. Then, after the door is opened and all safety sensors are clear, a timer would count down and close the door automatically. In order for the timed feature to work, the door must have initially been in a closed or stopped position. If the door was already opened by some other means, the timer would not operate and the door would remain open.

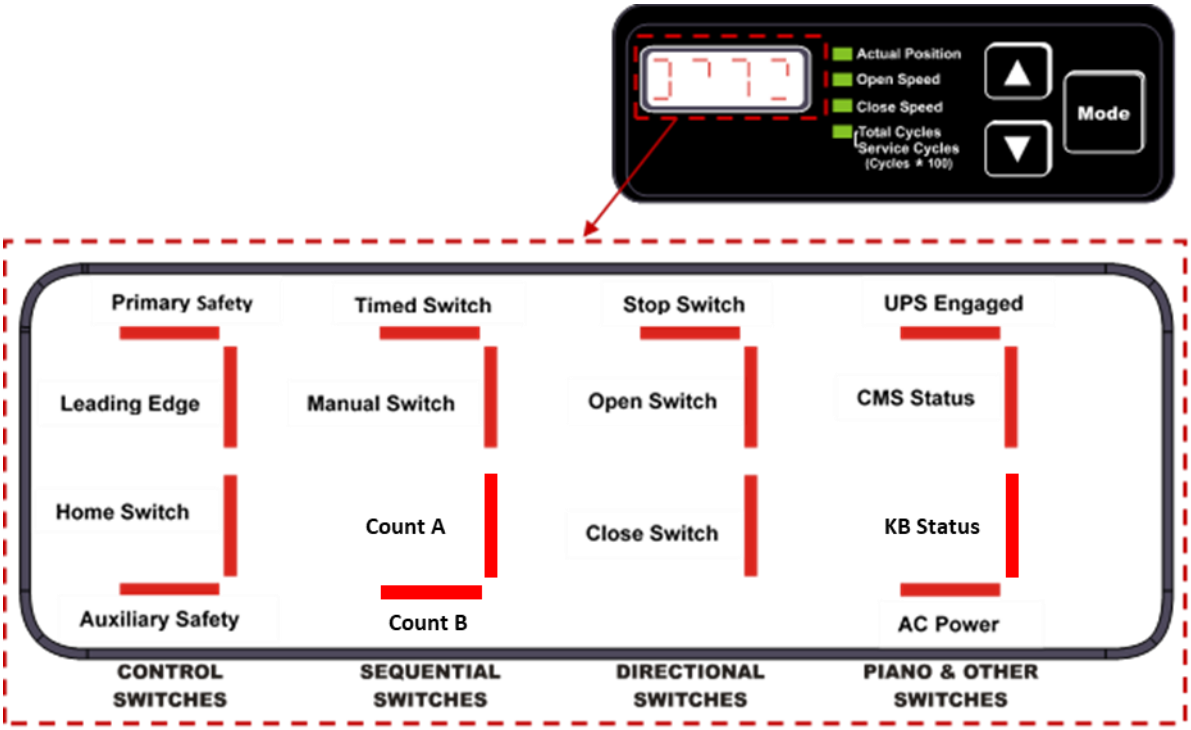
The timed switch has priority five when the door is in the idle mode. However, if the door is in the process of closing, the timed input will act as a safety feature and that will stop and reverse the door until the door is fully opened.

Section 13.2 shows the connections for the directional, manual and timed switch inputs to the controller.

9. Troubleshooting Controller and/or Door

9.1 P12 – Input Status Indicators

This parameter is used to service or troubleshoot the door. The various inputs are represented by LED segments on the display as shown below.



If a display segment is "ON", the switch is made; Segment is "OFF", switch is Not Made.

For Example, when the Safety Beam is obstructed, the Safety Beam display segment will turn ON and remain ON until the obstruction is removed.

*Available on Software versions V0.21 and later.

Important Indicators:

- For the door to close, the "Primary Safety" & "Leading Edge" display segments must be "OFF".
- If the "Stop Switch" display segment is "ON", the door will not operate.
- If the "Open Switch" display segment is "ON", the door will not close.
- The "KB Status" display segment will be "ON" when the KB Drive is charged and "OFF" when the drive is powered down.
- The "CMS Status" display segment is "ON" when the CMS is running and "OFF" when the CMS is not running.
- The "UPS Status" display segment is "ON" when the door is being powered from the battery and "OFF" when the door is being powered from AC Line power. (Future Use)

9.1.1 Error Codes and Recommended Action

Error Codes and Recommend Action		
Error Code	**Description**	**Recommended Action**
E1	HOME switch is tripped	Check the wiring and that the HOME switch arm is completely depressed.
E2	EGRESS switch is tripped	Check the wiring and switch.
E3	EGRESS switch is tripped	Check the wiring and switch.
E8	Encoder Count Fault	Check encoders in junction box on door.
E16	Memory Malfunction	Reset controller
E32	Controller Malfunction	Reset controller

Code	Condition	Panel Movement	Problem Area	Recommended Action
EO1	Opening, Home Switch tripped		Home Switch	Check the wiring and that the HOME switch arm is completely depressed.
EC1	Closing, Home Switch tripped			
EO2	Egress Switch tripped		Egress Switch	Check the wiring and switch.
EC2	Egress Switch tripped			
EO3	Egress Switch tripped		Egress Switch	Manually release brake and pull panel below Home switch.
EC3	Egress Switch tripped			
EO8	Opening, Encoder Fault		Encoder Count Fault	Check encoders in Junction Box on door.
EC8	Closing, Encoder Fault			
EO16	Opening, Memory Fault		Memory Fault	Reset Controller
EC16	Closing, Memory Fault			
EO32	Opening, Major Fault		Major Fault	Reset Controller
EC32	Closing, Major Fault			
EOF1	Opening, Encoder Fault	Up	Encoder	Check DC harness; Make sure optics are clean.
		None	Drive or Brake	Make sure brake is releasing and Drive not overloaded.
		Down	Encoder	Panel has reversed on pipe.
		None	Egress Strap	Reset the (white patch) limit mark on the yellow strap up to the gold buckle located on the back side/center of the door.
ECF1	Closing, Encoder Fault	Up	Encoder	Panel has reversed on pipe.
		None	Drive or Brake	Make sure brake is releasing and Drive not overloaded.
		Down	Encoder	Check DC harness; Make sure optics are clean.
EOF2	Opening, Direction Fault	Up	Encoder	Signal Wires reversed.
		None	Drive or Brake	Make sure brake is releasing and Drive not overloaded.
		Down	Drive	Reverse two phases to the motor.
ECF2	Closing, Direction Fault	Up	Drive	Reverse two phases to the motor.
		None	Brake	Brake is not releasing.
		Down	Encoder	Signal Wires reversed.
EOF3	Opening, Motor Stall Fault		Motor Stall Fault	
ECF3	Closing, Motor Stall Fault			
EOF4	Opening, Over Speed Fault		Over Speed Fault	
ECF4	Closing, Over Speed Fault			

9.2 RollSeal Smart Switch Indicator LEDs: (See Next Page)

9.2.1 Indicator LEDs - The Indicator LEDs have multiple functions that are used to help troubleshoot door issues, indicate the status of the door operation, and warn for door movement.

1. LED on solid indicates that the sensor is in error or a problem has occurred.
2. All eight LEDs fading together indicates door is in a timed open cycle and will eventually begin the close cycle.
3. All eight LEDs flashing together indicates the door is moving or about to move.

9.2.2 Open and Close Switches/LEDs:

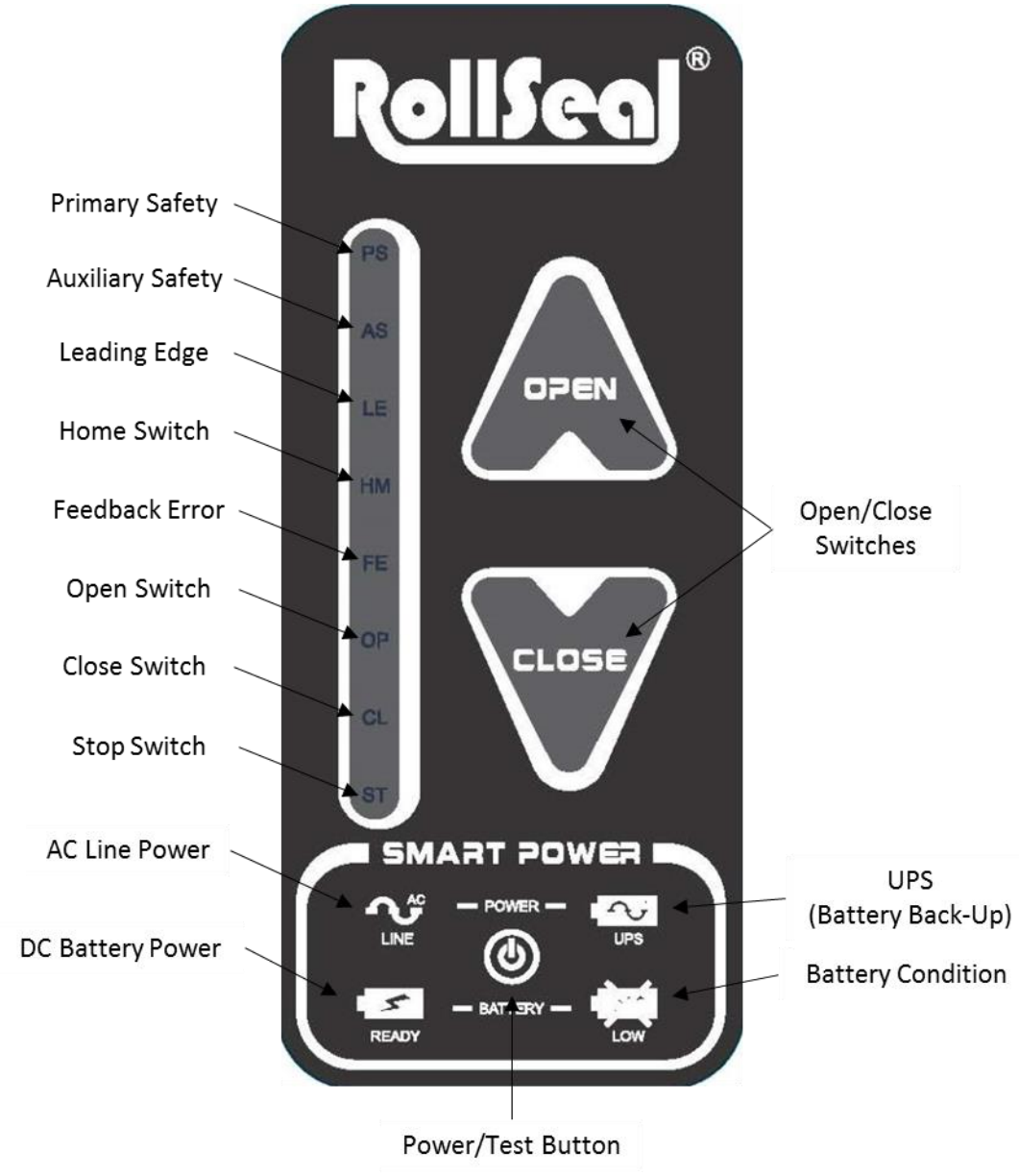
1. Press and release to initiate an open or close cycle. In the event that the door will not operate due to an issue, press and hold to override with constant pressure.

2. If the green LEDs located behind the open or close switch are illuminated, it indicates that only the illuminated function is allowed. If the LEDs located behind the open or close switch are not illuminated, that function is not allowed in the current state of the door. In the case of an issue, it may be necessary to override on the direction needed by pressing and holding the non-functioning switch with constant pressure.

9.2.3 Smart Power Functions: (Future Functions)

1. AC Line Power is present when illuminated.
2. DC Battery Power is present when illuminated.
   a. Battery is fully charged when the LED is solid.
   b. Battery is charging when the LED is flashing.
3. Power/Test Button
   a. A solid LED indicates that the door is operational and ready for action.
   b. Press the button to test the battery and the UPS function (if UPS is equipped).
   c. Releasing the button will force a controller reset.
   d. If the LED is fading, the door is in sleep mode to prolong the life of the system.
   e. If LED is flashing, the door has shut down to conserve battery power (if UPS is equipped).
4. Battery Condition:
   a. Battery is not present if on solid.
   b. Battery is present but too low to operate door if flashing.
5. UPS (Battery Backup):
   a. Future Feature that is not standard on all RollSeal Models
   b. UPS is engaged if the LED is illuminated. This means that the door is functioning only on battery backup.
   c. UPS is not engaged if the LED is not illuminated. This means that the door is being powered off of AC Line Power.

ROLLSEAL SMART SWITCH



10. Controller Installation and Setup

10.1 Installation Instructions

1. Unpack system, and check that all components are present.
   (1) RollSeal Smart Controller
   (1) Installation Kit
   (1) Manual
2. Hang the controller with four screws at the specified location.
3. Make sure all power supplies are disconnected before breaking any wires, or reaching into the controller enclosure.
4. Determine the required Powering Voltage whether 115 VAC (SC-325M only) or 230 VAC.
5. The SC-325M Controllers are factory preset to 115 VAC and the RS-500 doors factory prewired to require a 115 VAC power supply. The SC-650M controllers are factory preset to 230 VAC and the RS-600 doors factory prewired to require a 230 VAC power supply. The SC-325M Controller can be field upgraded to accommodate either 115 VAC or 230 VAC power supply. Refer to **Section 12** for the SC controller power wiring, switch setting, and jumper setting.

⚠ Warning!

Only Qualified Electrical Personnel Familiar With The Construction And Operation Of This Equipment And The Hazards Involved Should Install, Adjust, And/Or Service This Equipment. Read And Understand This Manual In Its Entirety Before Proceeding.
Failure To Observe This Precaution Could Result In Severe Bodily Injury Or Death!

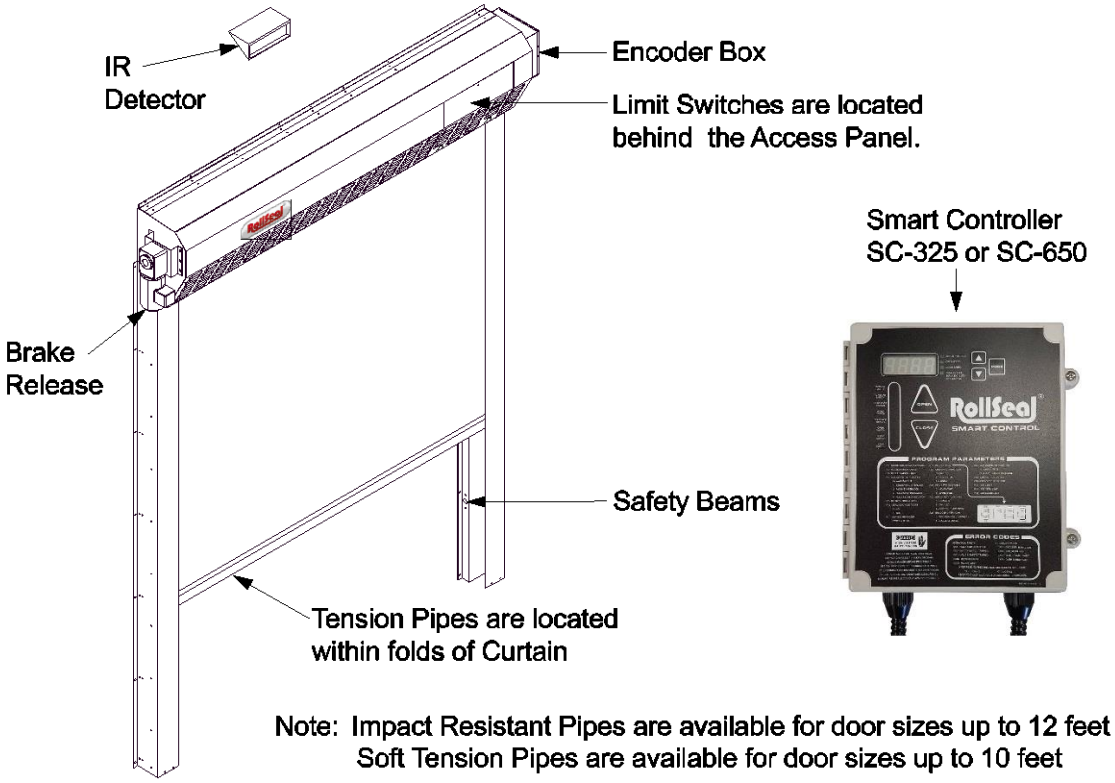
⚠ Warning!

Dangerous High Voltages!
Allow Approximately 5 Minutes For The Controller To Power-Down Before Changing Switch Setting, Jumper Placement, Or Wiring.

6. Connect power.
7. Turn the Controller on.
8. Set the Open and Closed Speed and Limits, and Deceleration Range (If Necessary), Close Time Delay and Switch positions as discussed in **Section 6** of this manual.

10.2 Typical Smart Controller Installation

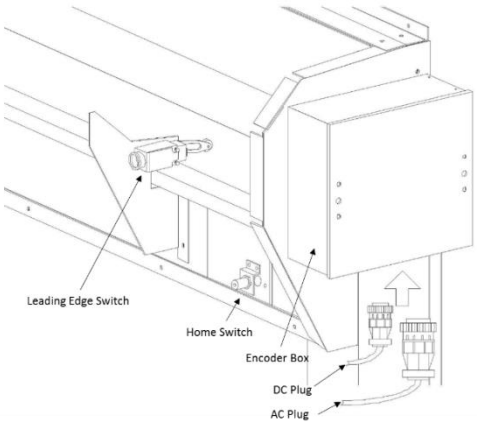
A typical installation of the Smart Controller involves, at a minimum, connections to AC Power, the door motor, the Up/Down button, and the Safety beam. Other accessories can be added such as a disconnect switch, remote IR sensor, a remote radio link, and door movement indicators such as lights and bells.



Note: Impact Resistant Pipes are available for door sizes up to 12 feet
Soft Tension Pipes are available for door sizes up to 10 feet

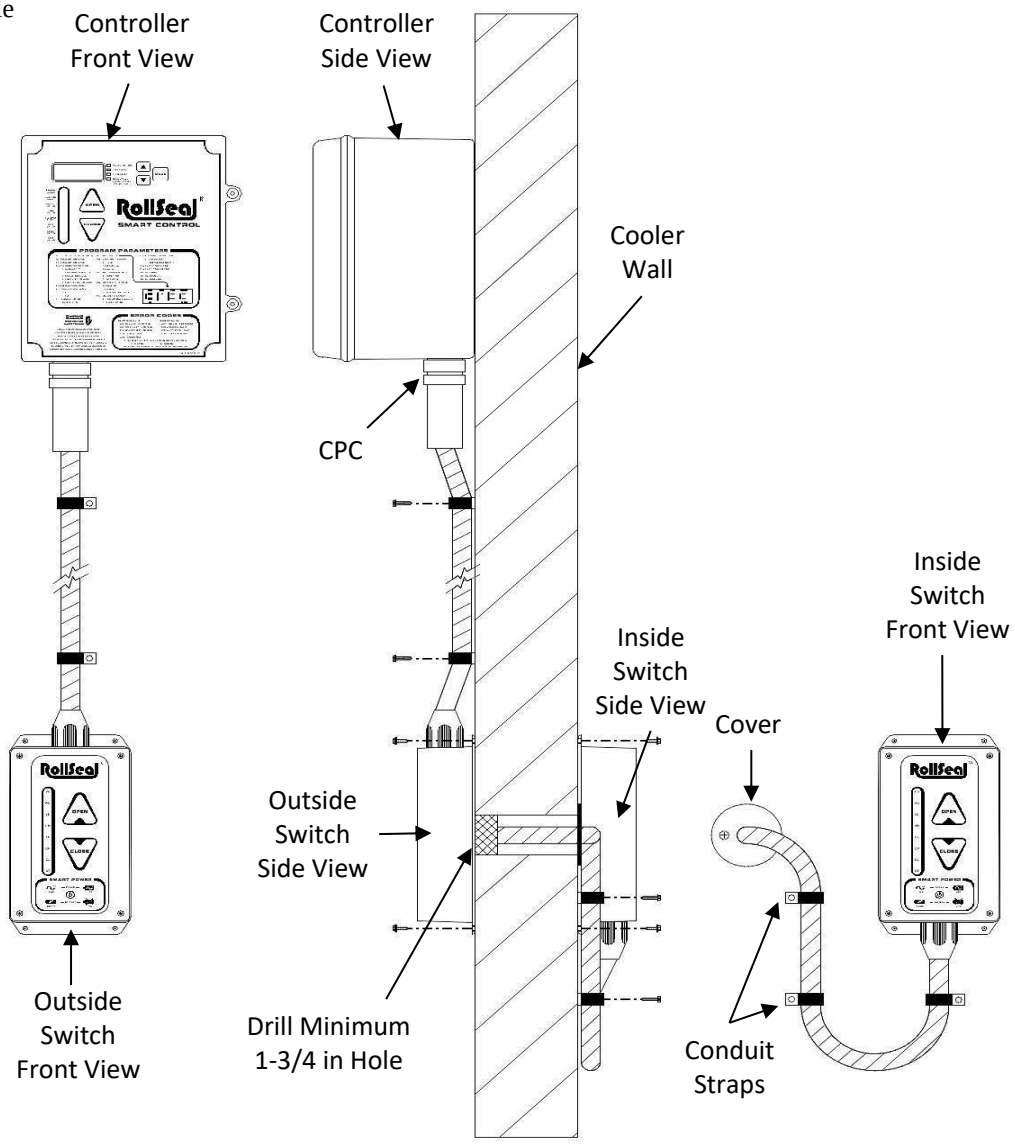
10.3 Connection of Controller to Head Unit.

1. Mount controller at desired location within 3' of the junction box on Head Unit.
2. Controller has and AC and DC harness prewired that connects to head unit.



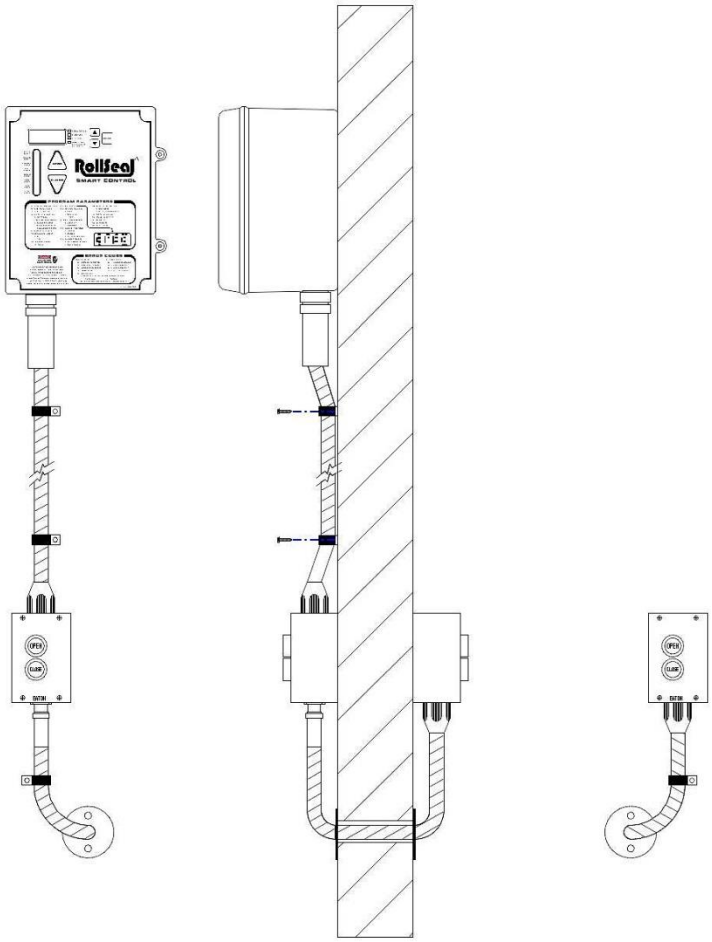
10.4 Installation of Pre-wired Switches (Smart Switches)

1. Connect Outside switch to Controller with PC connection. Push and turn CPC connector until it's completely locked in place.
2. Connect Outside Switch in desired location on cooler wall. **Note: Switch cover removed for mounting.**
3. Drill 1-3/4" hole through Cooler Wall to run Inside Switch out to connect to Outside Switch.
4. Route Inside Switch Harness through hole and connect to bottom of Outside Switch with CPC.
5. Mount Inside Switch in desired location. **Note: Switch cover removed for mounting**.
6. Install Conduit Straps on conduit as required. Mount a strap close to CPC connection to prevent tampering.
7. Insure conduit is run in a way to prevent moisture from running into electrical units.
8. Seal hole



10.5 Installation of Pre-wired Switches (Standard Two Button Switches)

Refer to Section 10.4 and Section 12.4 for details as to how to install the below standard two button switches.



10.6 Preparation for Operation

Note: If you detect any problems, STOP. Disconnect electrical power. Contact your distributor for assistance.

1. Apply 115VAC power to Control and turn Rocker Switch on.
2. See **Section 6** for Door Setup to set Open and Close Limits then proceed with the following steps.

Note: If door does not Open and Close to the proper position, see Section 6 for Open and Close Limit setup procedure.

3. Press "Open" button on Outside Switch.
   If the Door is set to automatically close, door will time out and automatically close if safety beams are clear
4. If the Door is set to manually close, press "Close" button on Outside Switch and door should close.
5. Press "Open" (and "Close" if required) a couple times to insure proper operation.
6. Press "Open" (and "Close" if required) with the Inside Switch a couple times to insure proper operation.
7. Verify Safety Beams reverse door when blocked during closing.

8. Verify Leading Edge Switch is operational.
9. Verify that Egress Buzzer (if applicable) is functioning properly.
10. Ensure Egress Safety Pull Hook and Hook Tether is mounted inside cooler near “Open/Close” switch and Manual Crank Handle for motor is mounted outside.

The door is now ready for operation.

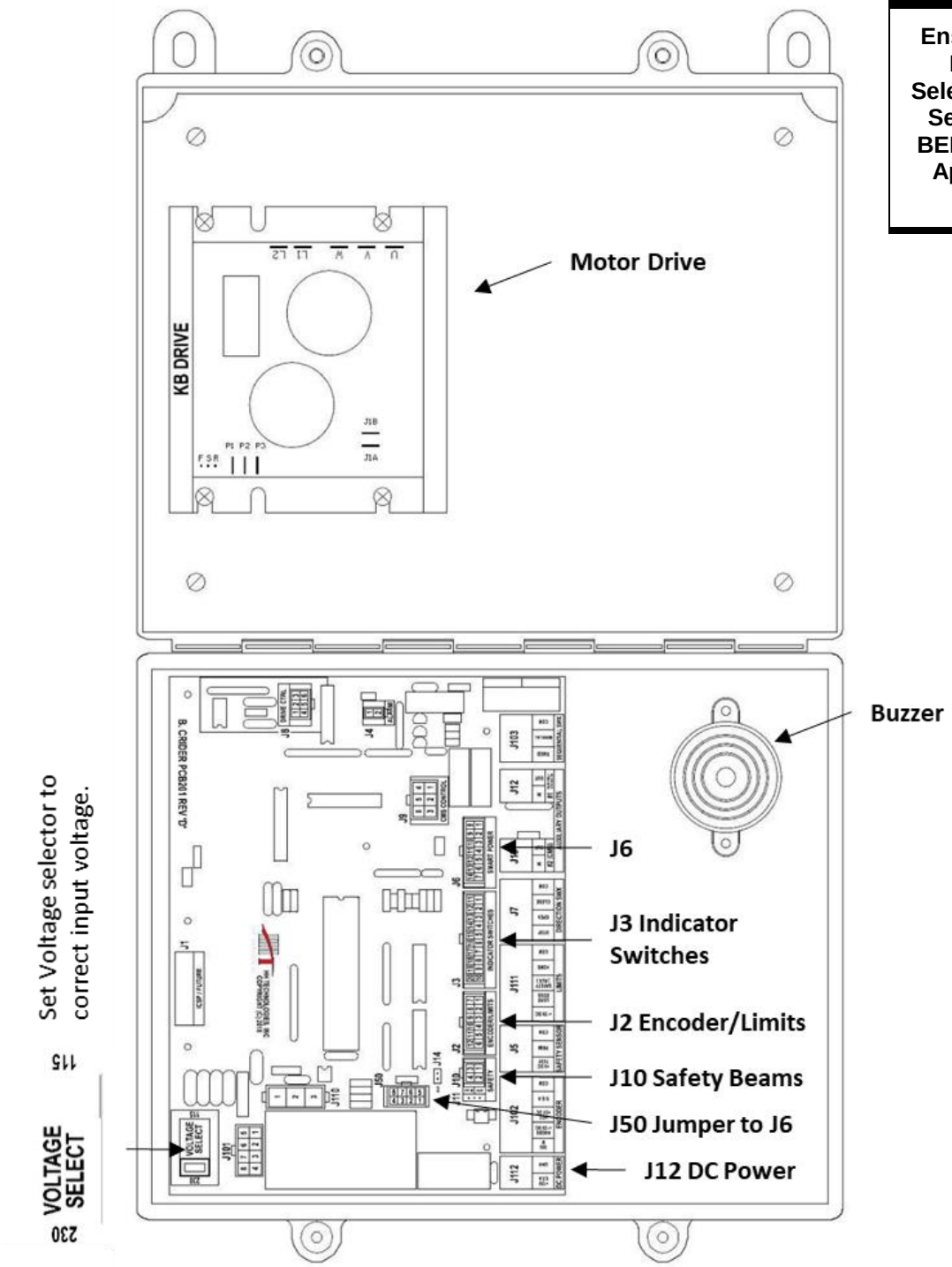
NOTE: See 4801-5162 RS500/600 Series Doors Installation Manual for more information on proper Egress System installation.

11.0 Smart Controller Internal Diagrams, Schematics, etc. This section contains the internal wiring diagrams for the Smart Controllers.

11.1 Smart Controller SC-325M Layout

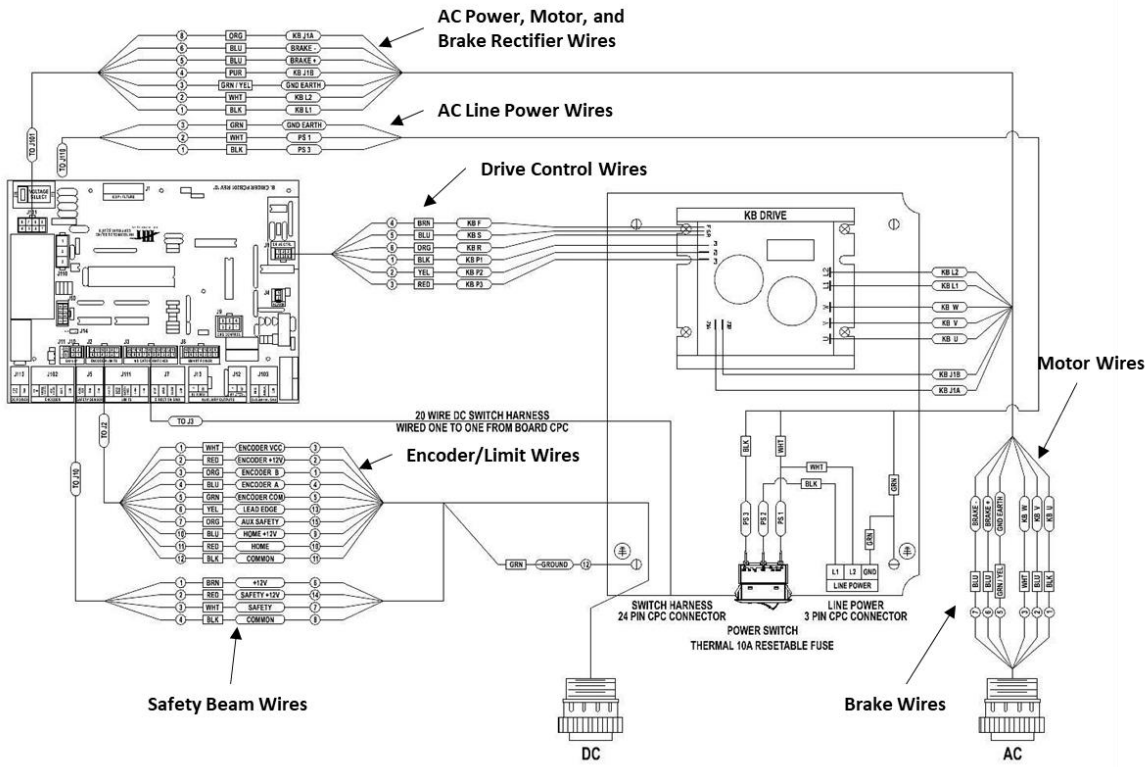
WARNING!

Ensure The Drive PCB 201 AC Selection Switch is Set Accordingly BEFORE Power Is Applied To The Controller.



11.2

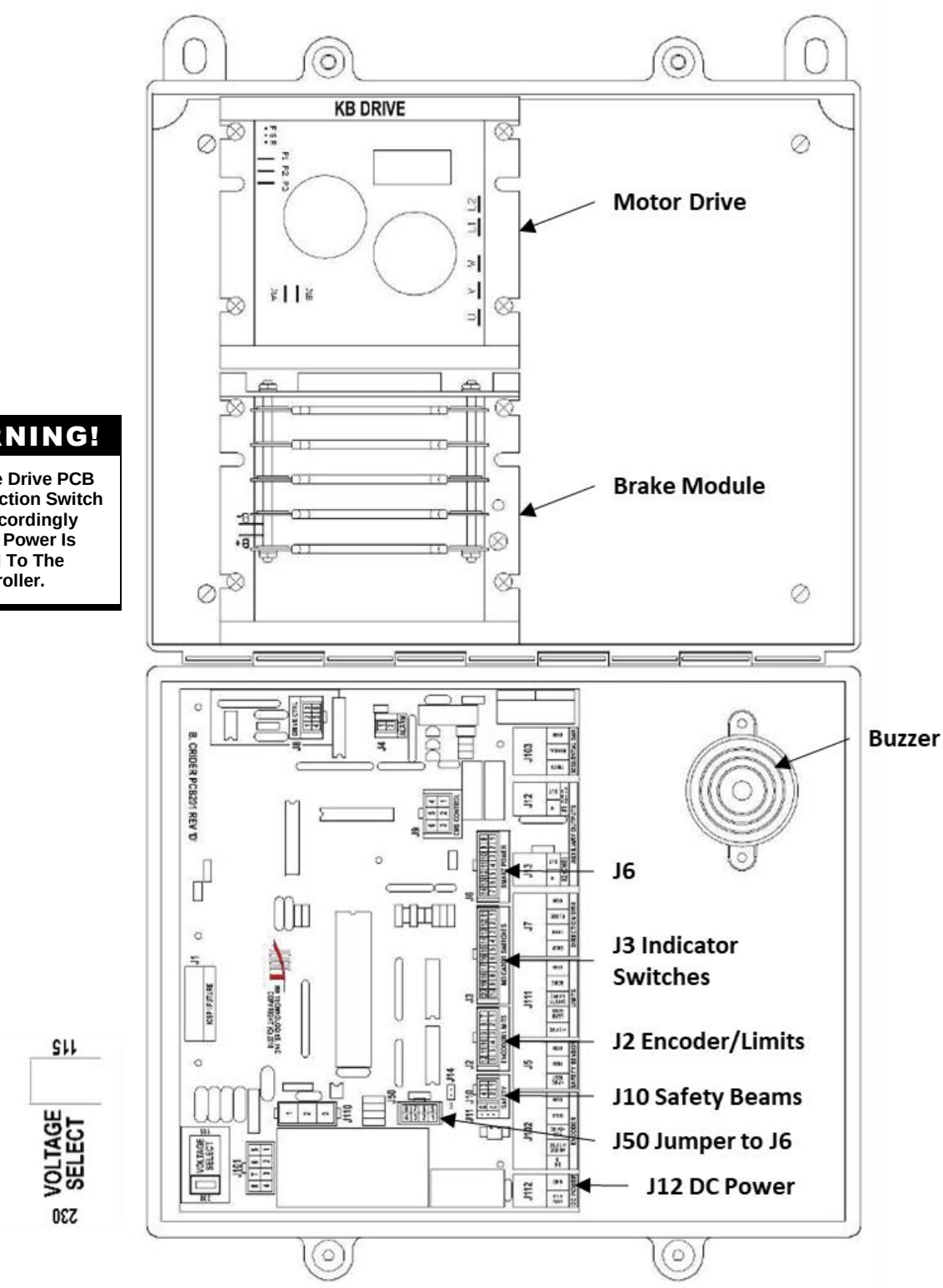
Smart Controller SC-325M Connection Diagram (Internal Wiring)



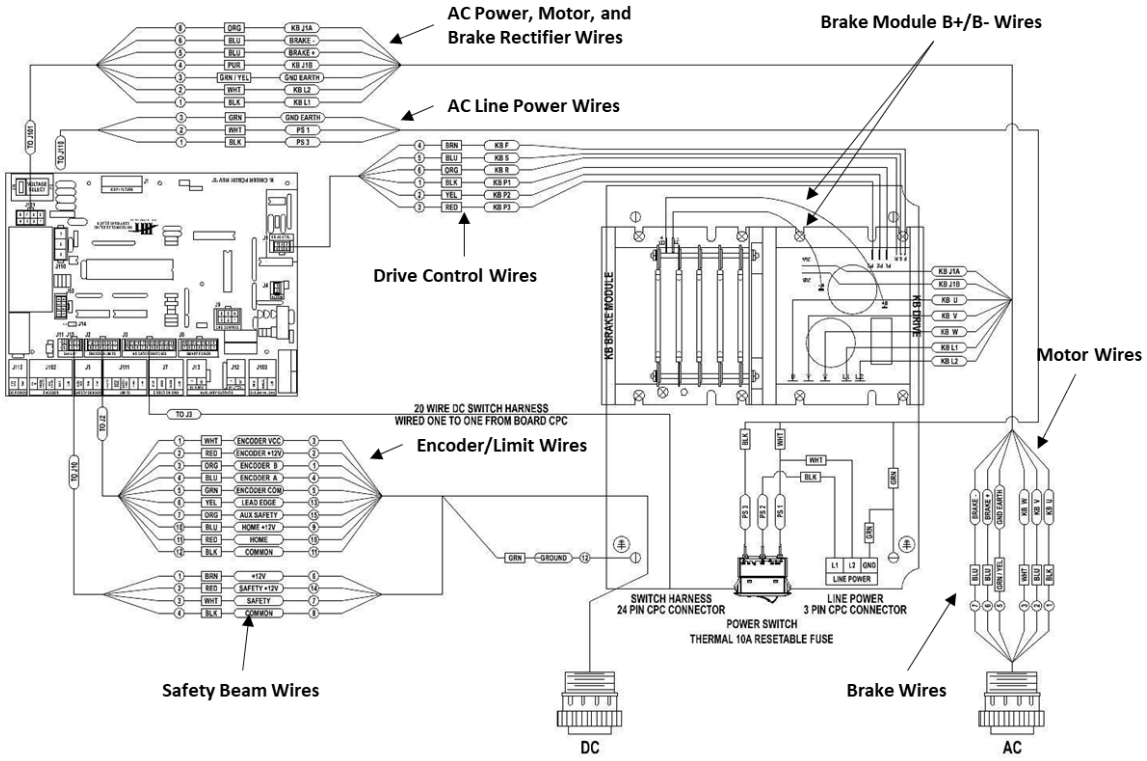
11.3 Smart Controller SC-650M Layout (Factory Set to 230VAC)

WARNING!

Ensure The Drive PCB 201 AC Selection Switch is Set Accordingly BEFORE Power Is Applied To The Controller.



11.4 Smart Controller SC-650M Connection Diagram (Internal Wiring)



12. Smart Controller External Wiring Diagrams, Schematics, etc.

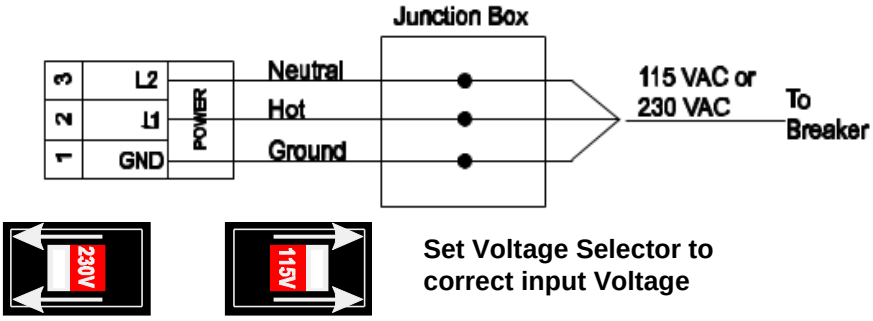
12.1 Connecting AC Power to the Smart Controller

The SC-325M Controllers are factory preset to **115 VAC** and the RS-500 Doors can accommodate either 115 VAC or 230 VAC power supply. The voltage selection switch must be changed accordingly.

The SC-650M Controllers are factory preset to **230 VAC** and the RS-600 Doors are factory prewired to require a **230 VAC** power supply.

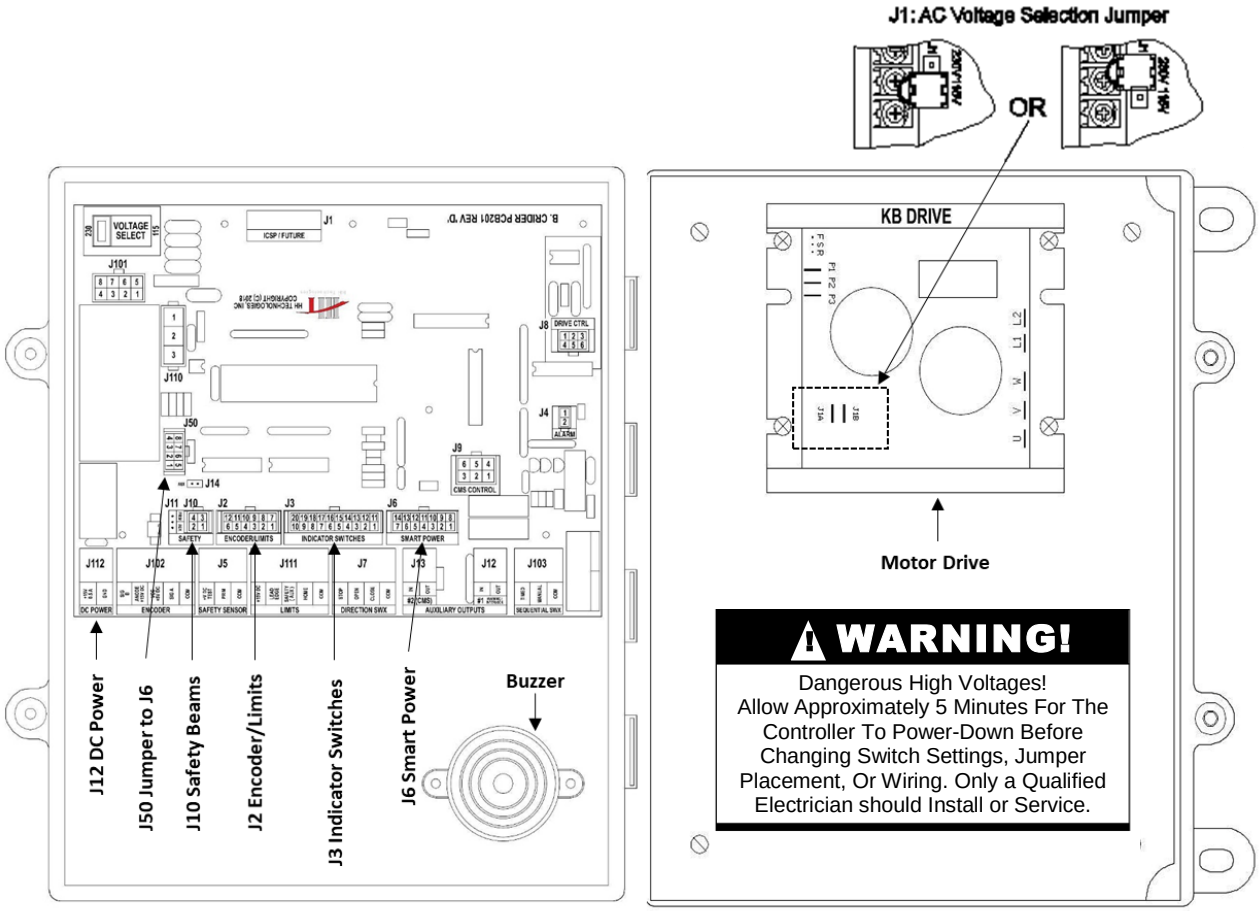
⚠ WARNING!

Ensure PCB 201 AC Selection Switch is
Set Accordingly BEFORE Power Is Applied To The Controller.

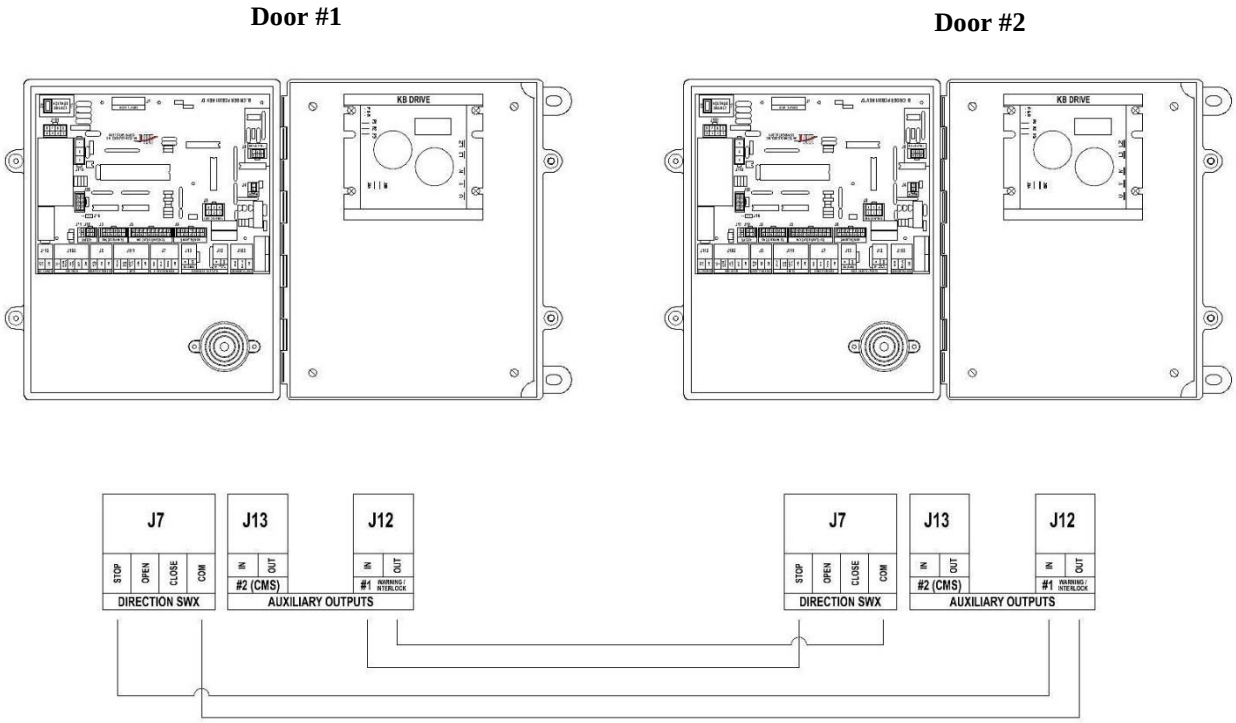


Set Voltage Selector to correct input Voltage

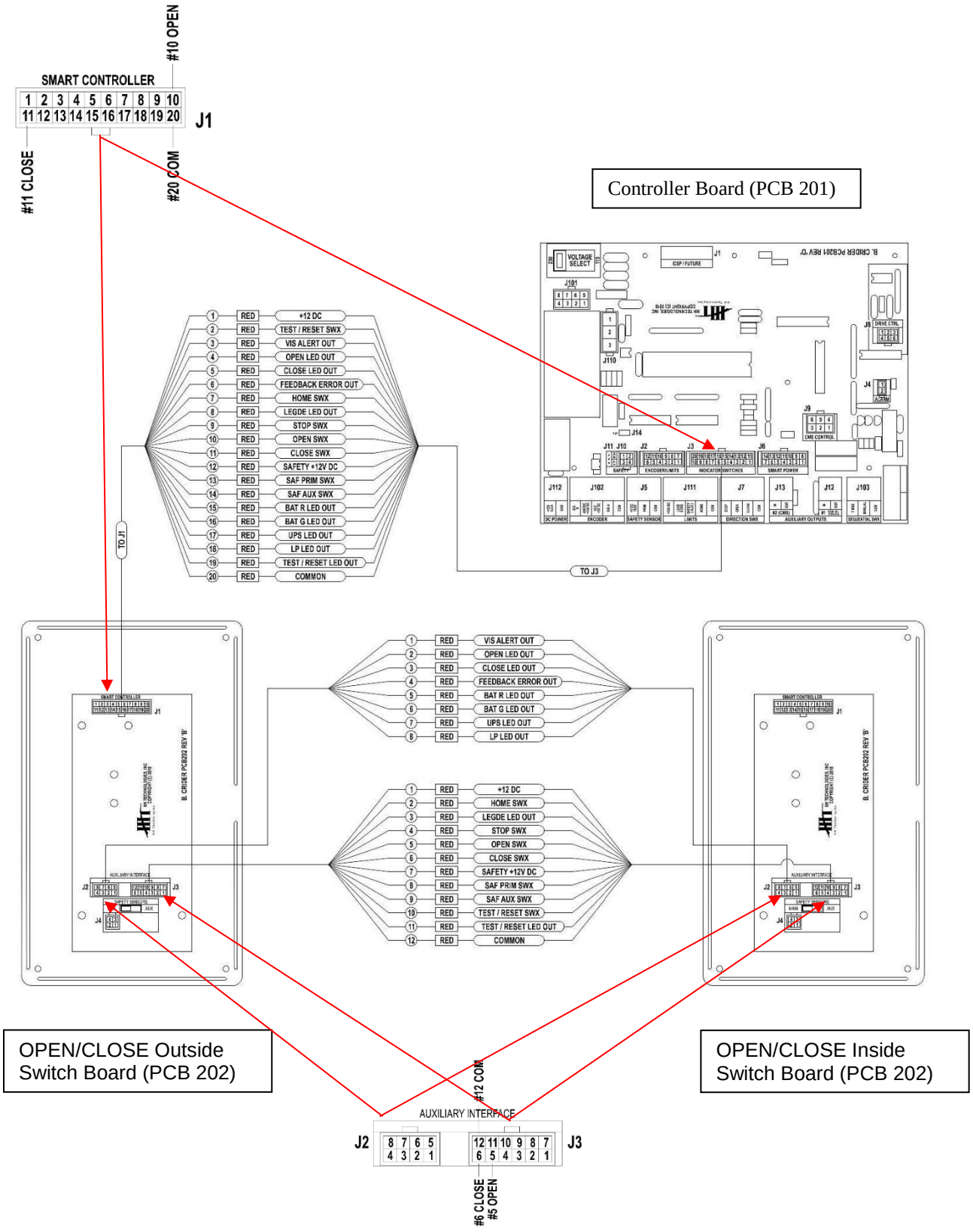
The KB Drives have two configurations for voltage selection. The 2-pin jumper will allow the controller to swap the voltage based on the setting on the control board but if the 3-pin jumper is present, the voltage selection has to be performed manually on the KB Drive.


J1: AC Voltage Selection Jumper
OR
KB DRIVE
Motor Drive
WARNING!
Dangerous High Voltages!
Allow Approximately 5 Minutes For The Controller To Power-Down Before Changing Switch Settings, Jumper Placement, Or Wiring. Only a Qualified Electrician should Install or Service.
J12 DC Power
J50 Jumper to J6
J10 Safety Beams
J2 Encoder/Limits
J3 Indicator Switches
J6 Smart Power
Buzzer

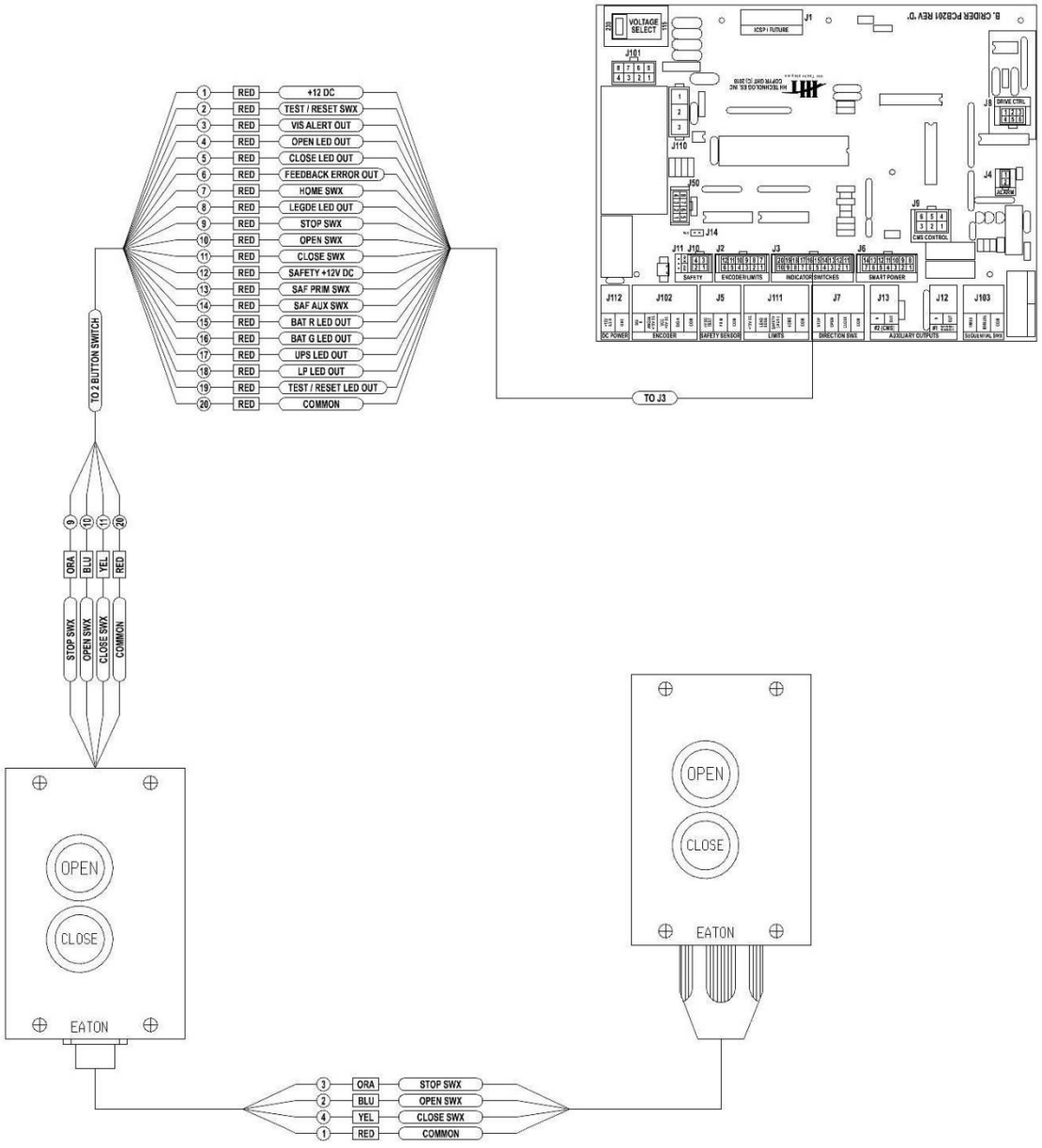
12.2 Interlocking Two Automatic Doors



12.3 Connecting the Operator OPEN/CLOSE Switch Boxes to the Smart Controller in the RollSeal Doors. COM/OPEN/CLOSE Pins shown detailed connector drawings. (RollSeal Smart Switches)

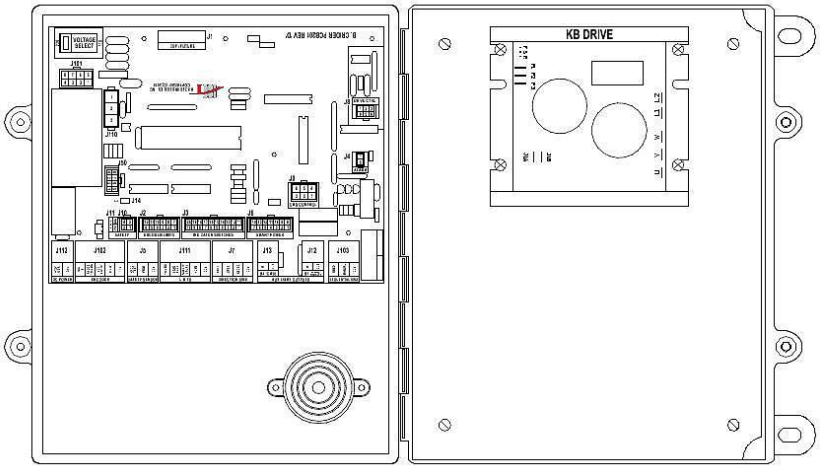


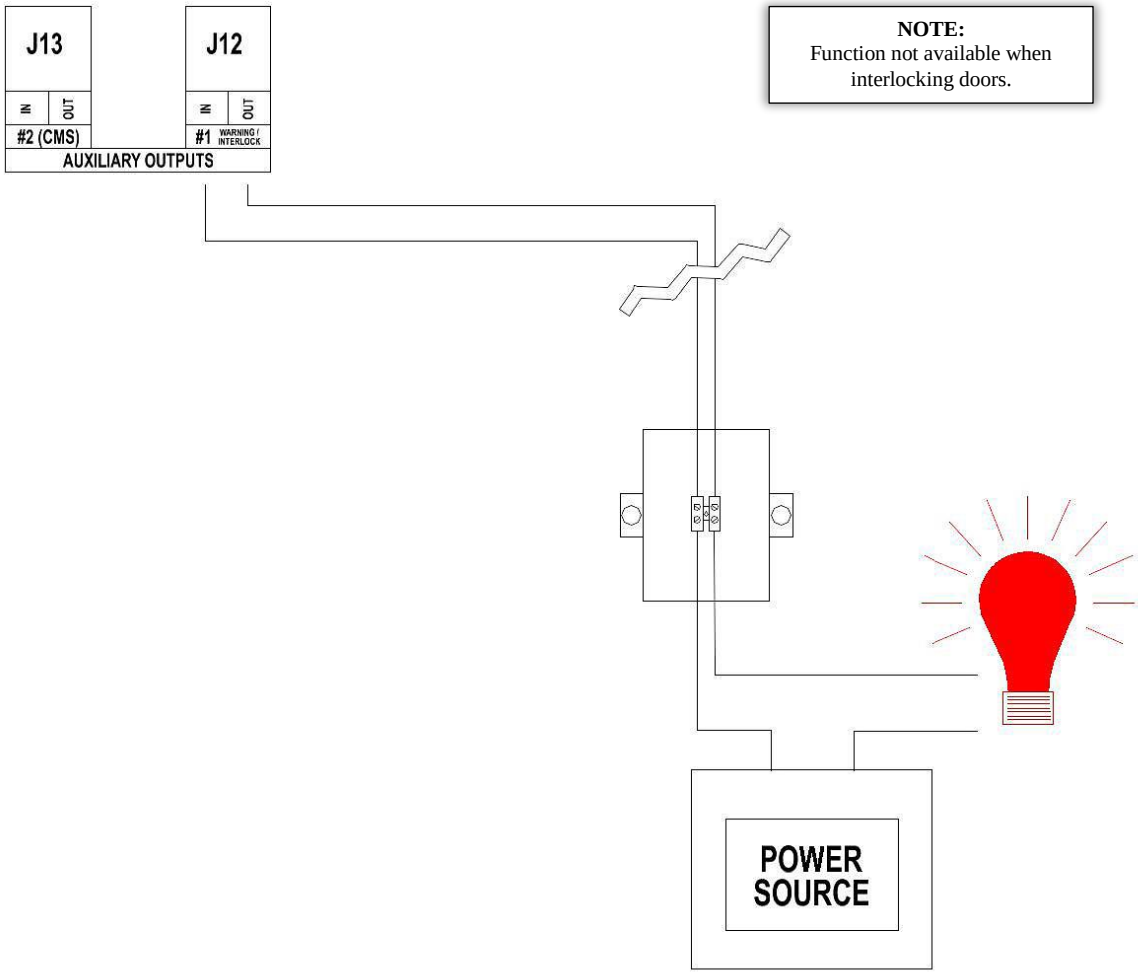
12.4 Connecting the Operator OPEN/CLOSE Switch Boxes to the Smart Controller in the RollSeal Doors. (Standard Two Button Switches)



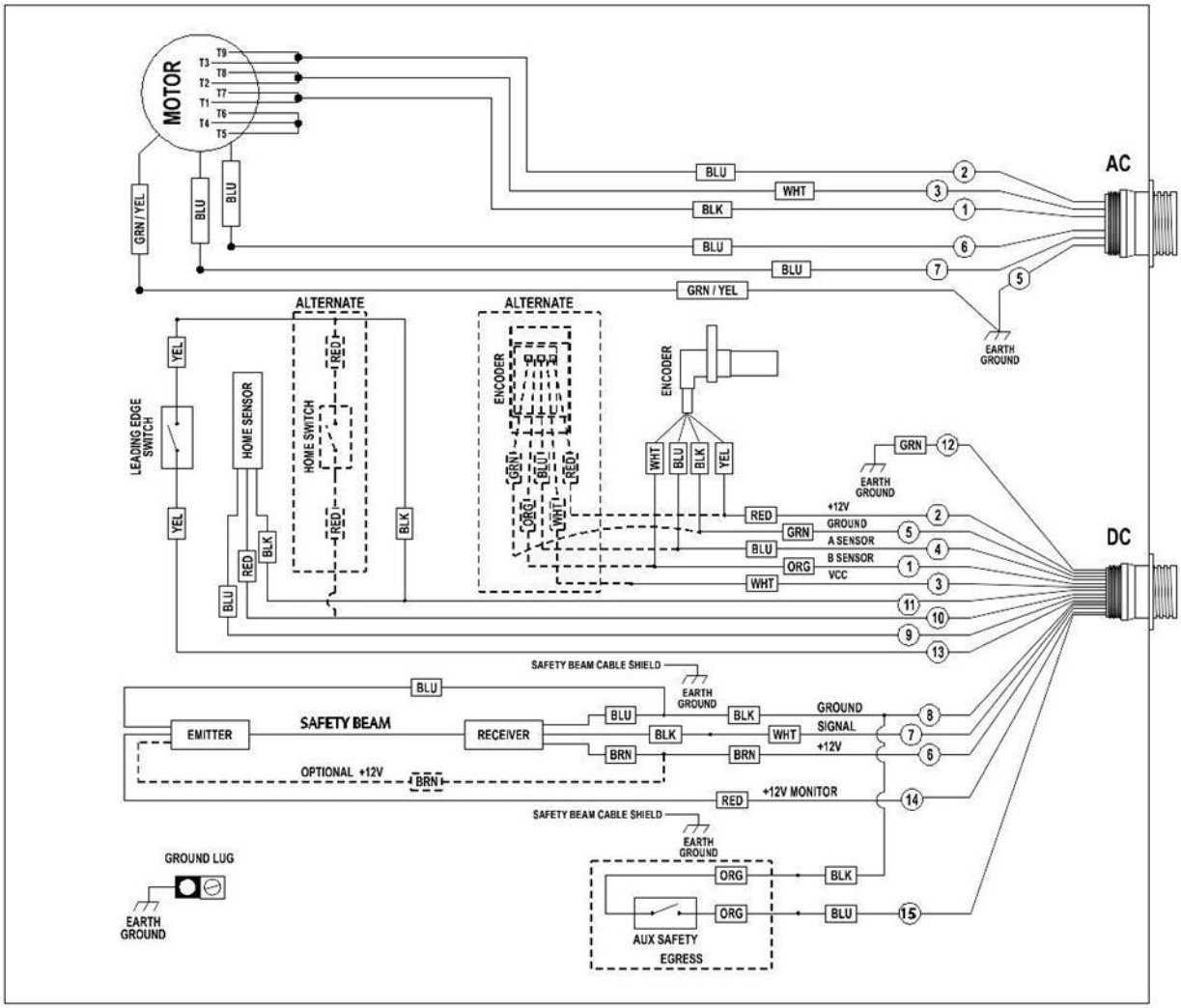
12.5 Connecting Moving Door Warning Light to the Smart Controller

Smart Controller – Right & Left Side Compartments





12.6 RollSeal Automatic Door Wiring Diagram



13. Accessories

13.1 Remote Transmitter and Receiver (Ordered Separately)

Depending on how the RS-500/600 is equipped, an Accessory Power Supply may be necessary for the addition of optional equipment. Accessory Power Supplies are available in 1 Amp and 4.5 Amp.

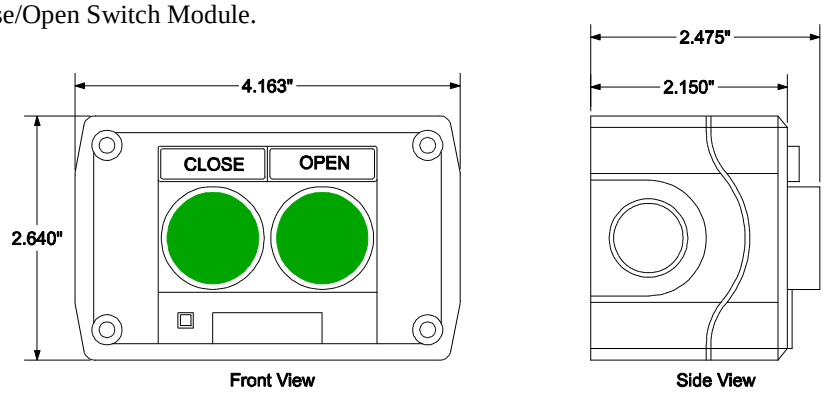
The BEA Remote Receiver has four (4) types of transmitters that are available. This allows for custom activation and/or sequencing of doors.

See **Section 13.4** for wiring details.

13.2 2-Button Close/Open Switch Module (Ordered Separately)

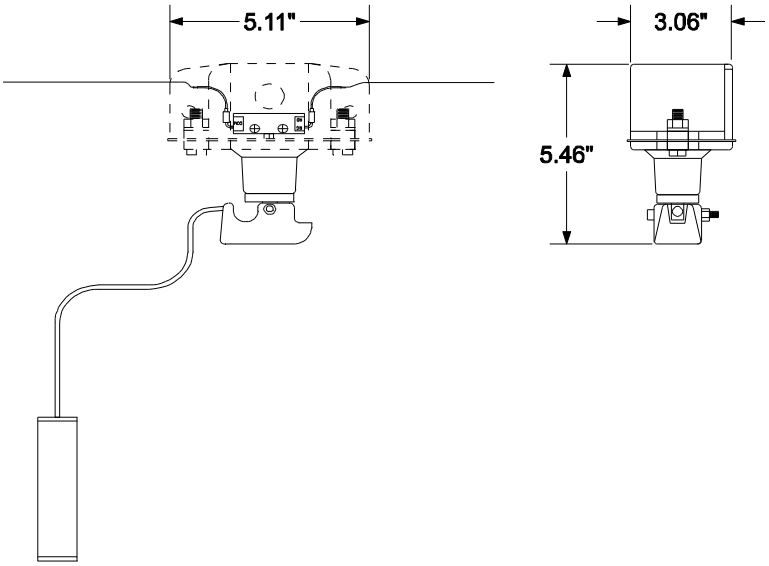
The Close/Open Switch Module contains two normally-open momentary dry contact switches.

The OPEN switch may be connected to any one of the following three connections to PCB 201: Sequential Timed, Sequential Manual, or Directional Open depending on the specific application requirements. The CLOSE switch should be wired to the Directional CLOSE connection. Refer to **Section 13.2** for connections to the 2-Button Close/Open Switch Module.

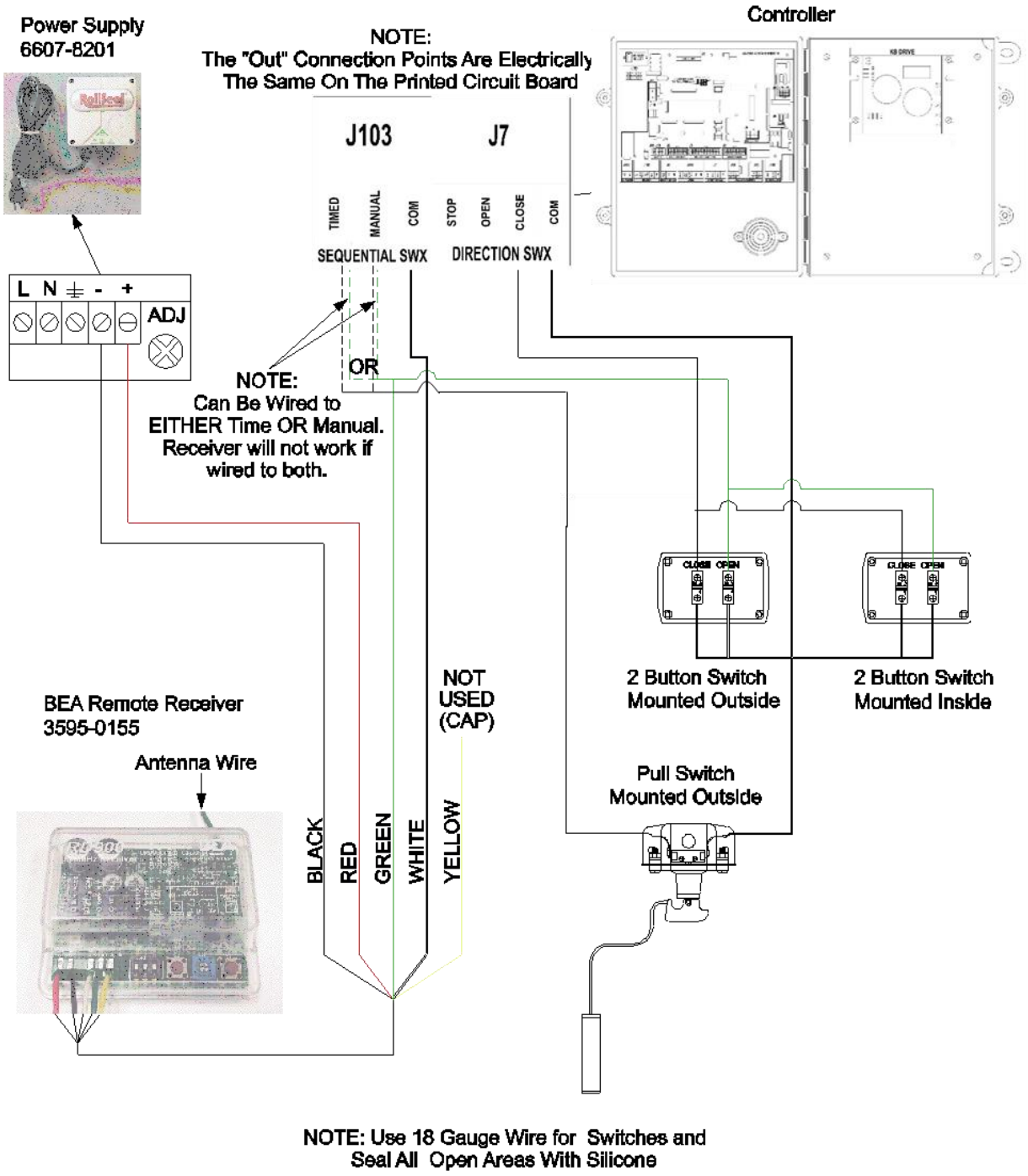


13.3 Ceiling/Wall Mount Pull Switch Assembly (Ordered Separately)

The Ceiling/Wall Mount Pull Switch is normally mounted to the ceiling or near a wall to provide easy access door operation. The Ceiling Pull switch is normally wired to the PCB 201 Sequential Timed connection but may also be used for other switch operations when required.



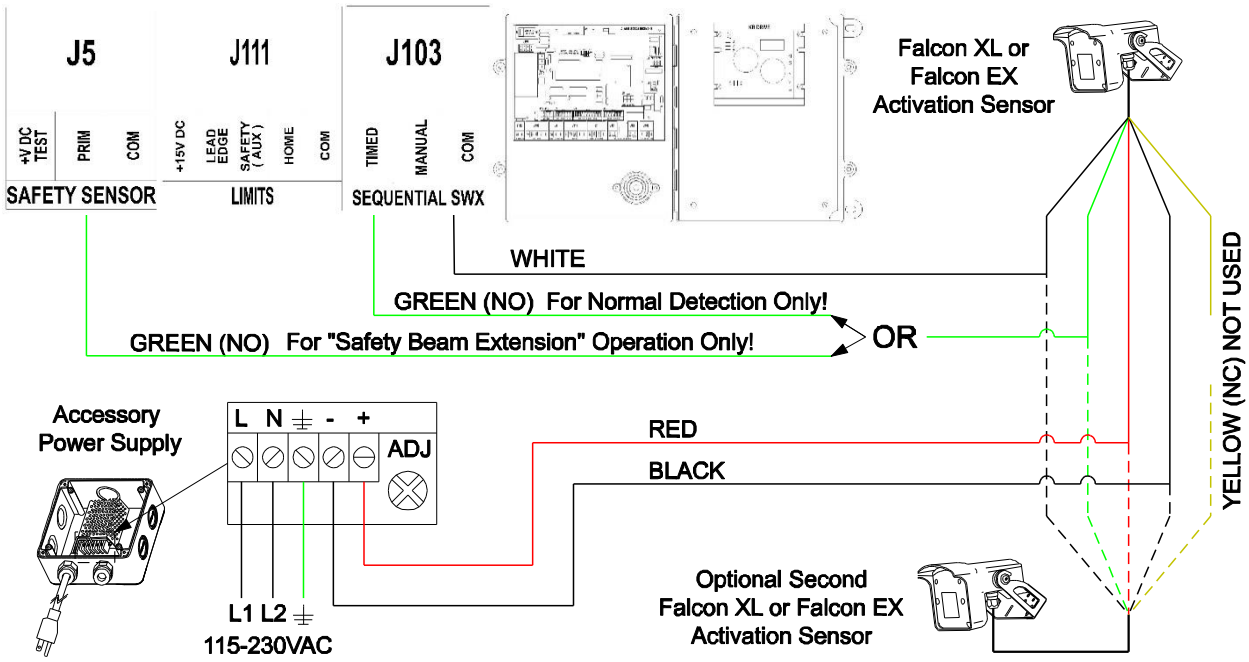
13.4 Connecting Switches and BEA Remote Receiver to the Smart Controller



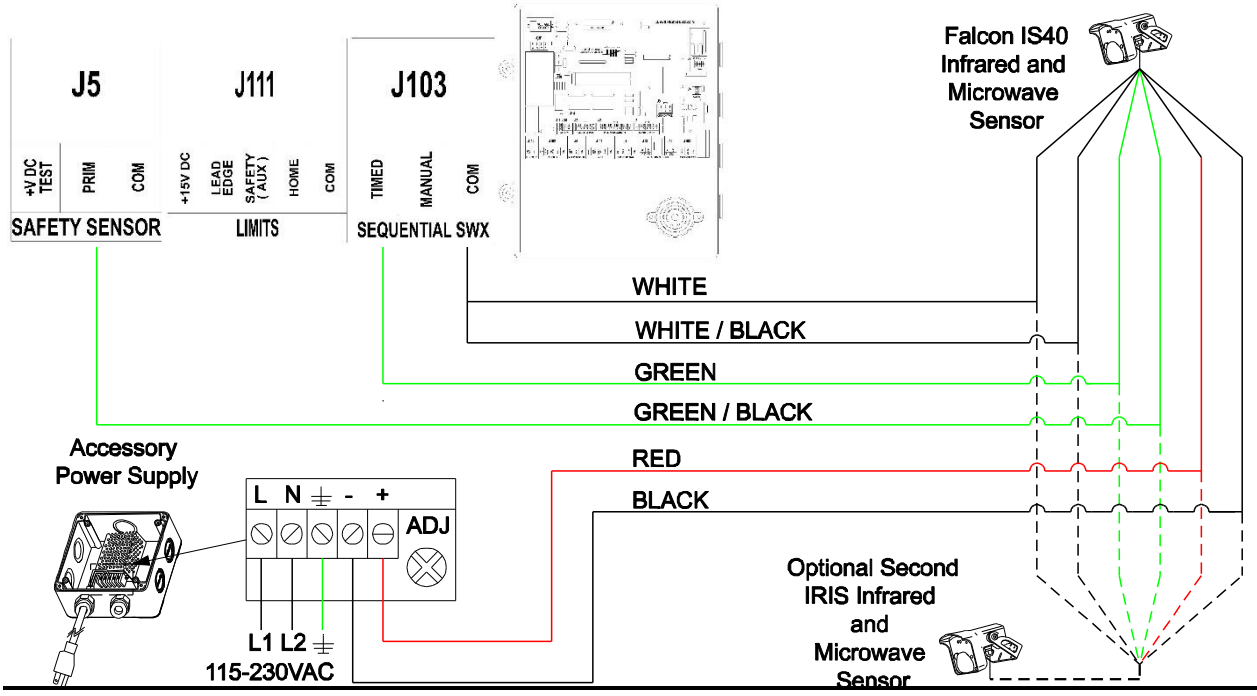
13.5 Motion Detectors, Infrared Sensors and Loop Sensors (Ordered Separately)

Motion Detectors, Infrared Sensors and Loop Sensors are optional accessories that can improve the efficiency and performance of your RollSeal Door. Sensors can also help prevent damage to the RollSeal Door by preventing the door from closing while lifts or objects are present in the vicinity.

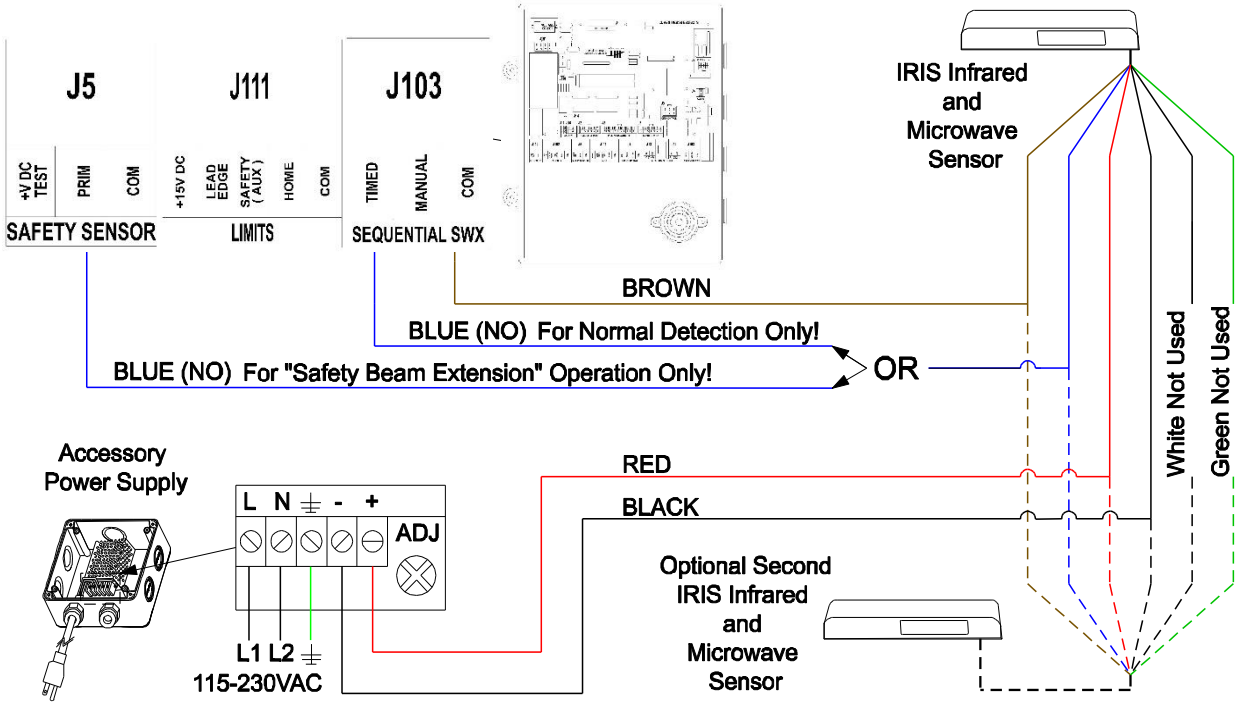
13.5.1 Wiring Falcon XL and EX Motion Detectors



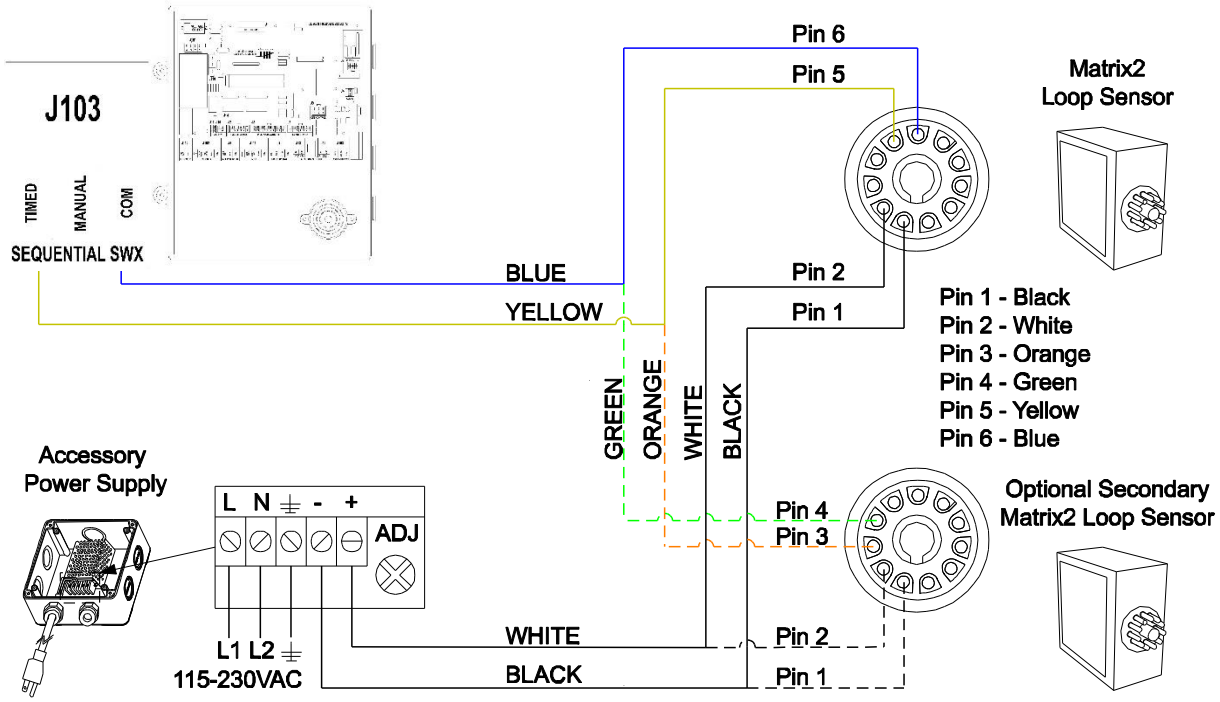
13.5.2 Wiring Falcon IS40 Infrared and Microwave Sensors



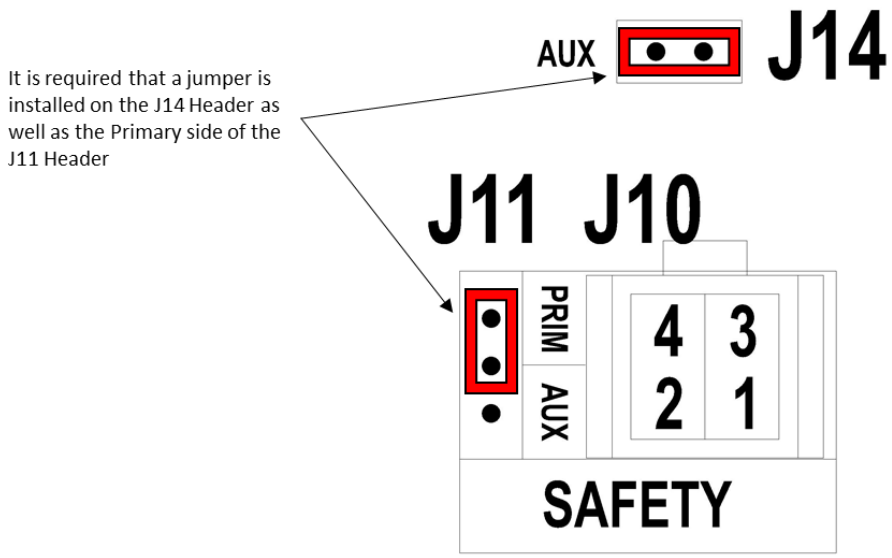
13.5.3 Wiring IRIS Infrared and Microwave Sensor



13.5.4 Wiring Matrix 2 Loop Sensor



13.5.5 Position of the J11 and J14 Jumpers



14. Replacement Parts and Optional Accessories

This manual as well as the 4801-5162 RS 500M-600M NSF Door Install Manual can be obtained electronically at www.rollseal.net.

14.1 SC-325M Controller

SC-325M Controls, Parts, and Accessories

Part Number	Description	Notes
Controller		
6607-8110	SC-325M	Use with RS-500 Doors ONLY

Drive Board Assemblies		
6407-6082	Use with SC-325M Controller 6607-8110 /PCB AC DriveKBVF-22D w/QA	Use with SC-325M Controllers ONLY.
1903-6130	Drive Cable Assembly	
3701-6075	PIC SC-325M RS Door Control	Use with SC-325M Controllers ONLY.

Thermal Switch		
3001-6507	SWITCH Thermal C1005B 3B101BR3	

Door Assembly		
6407-0619	/DOOR ASSY SC-325M	Use with SC-325M Controllers ONLY.

14.2 SC-650M Controller

SC-650M Controls and Parts

Control	Description	Notes
6607-8111	SC-650M	Use with RS-600 Doors ONLY

Drive Board		
6407-6086	/PCB AC DriveKBVF-23D w/QA	Use with SC-650M Controllers ONLY
1903-6130	Drive Cable Assembly	
3701-6076	PIC SC-650M RS Door Control	Use with SC-650M Controllers ONLY

Brake Module		
6407-6088	/PCB Brake Module DBVF vr.9598	Use with SC-650M Controllers

Thermal Switch		
3001-6507	SWITCH Thermal C1005B 3B101BR3	

Door Assemblies		
6407-0621	/DOOR ASSY SC-650M	Use with SC-650M Controllers ONLY

14.3 Door Replacement Parts and Accessories

RollSeal Parts, and Accessories

Part Number	Description	Notes
Cable and Harness Assemblies		
1903-3117	HRNS RS-500 and RS-600 DC 6'	
1903-3118	HRNS RS-500 and RS-600 AC 6'	
1903-3105	HRNS RS-500 DC (Short)	
1903-3102	HRNS RS-500 and RS-600 AC (Short)	
1903-6130	Drive Cable Assembly	

Encoder		
6407-1565	Encoder Board	
6421-1404	Encoder Assembly	
6450-2008	Encoder Bracket Kit	
1903-3113	HRNS HALL EFFECT 6P DEUTSCH	
6540-0089	D5/6 FLOATING HALL EFFECT ASSY	
6521-0065	D5/6 HALL EFFECT REST ASSY	

Safety Beam		
6421-9040	Emitter (motor side)	
1903-3112	Receiver	

Door Switches		
1903-3109	Lead Edge Switch	
1903-6167	Home Switch	
1903-3052	Mechanical Home Switch	

Door Replacement Parts		
0401-7728	Leading Edge Switch Bracket	

Power Supply and BackUp Units		
3595-0109	Power BackUp 115 VAC	
6607-8200	Accessory Power Unit 12VDC 4.5A	
6607-8201	Accessory Power Unit 12VDC 1A	
6607-8202	Battery BackUp 230VAC 850VA	
6607-8203	Battery BackUp 115VAC	

Motion Detectors and Sensors		
3595-0108	Falcon XL	3595-0103
3595-0006	Falcon EX	3595-0104
3595-0127	Falcon IS40	
3595-0125	IRIS	
3595-0110	Matrix2	

Terminal Blocks		
3006-5076	2 Position Terminal Block	
3006-5077	3 Position Terminal Block	

3006-5078	4 Position Terminal Block	
3006-5079	5 Position Terminal Block	
3006-2984	2 Pin Mini Jumper	
Accessory Switches		
3001-7006	2-Button Close/Open Switch	
3001-7000	3-Button Close/Open/Stop Switch	
3001-6000	Ceiling Pull Switch CP1 SPST	
3001-6012	Ceiling/Wall Pull Switch	
6450-7640	Push Button Switch Kit	
6407-1706	/PCB202 w QA	
1903-3115	HRNS 6' SWITCH OUTSIDE	
1903-3116	HRNS 3' SWITCH INSIDE	
1903-3122	HRNS 6' M SW CNTRL TO OUT 2 BU	
1903-6119	HRNS 3' 2-ButtonInsideCooler	

Remote Operation		
3595-0105	Remote Receiver	
3595-0106	Remote Transmitter	

Manuals		
4801-5161	RS SC-M Controls Manual	
4802-5162	RS-500/600 M Install Manual	


RollSeal