



OWNER'S MANUAL MODEL 415

High-Speed Fabric Roll-Up Door

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Safety Practices



This is a safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

A WARNING

WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

A CAUTION

CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

CAUTION

CAUTION used without a safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

NOTE

NOTE explains general information.

WARNING

Warning read these safety practices before installing, operating or servicing the SLIDING door. Failure to follow these safety practices could result in property damage, death or serious injury.

READ AND UNDERSTAND ALL WARNING LABELS AND OPERATING INSTRUCTIONS IN THIS MANUAL BEFORE OPERATING THE SLIDING DOOR. If you do not understand the instructions, ask your supervisor to teach you how to use the SLIDING door.

Safety Practices (cont'd)

- 1. Do not operate the door while under the influence of drugs or alchohol.
- 2. Do not use the door if it looks broken or does not seem to work properly. Advise your supervisor at once.
- 3. Stay clear of the door when it is moving
- 4. Keep hands, feet and head clear of the door at all times.
- 5. Do not operate the door with equipment, material or people directly inside door opening.
- 6. Disconnect power before performing any electrical or mechanical service, cleaning or other maintenance on the door. OSHA requires disconnect to be properly tagged and locked out during all maintenance or service of equipment. With the power supply disconnected, always verify using a volt meter.
- 7. All electrical troubleshooting or service must be completed by a qualified electrician or service person and must meet all applicable local, state, federal, international and other governing agency codes.
- 8. When it is necessary to service the control box with power on, USE EXTREME CAUTION. Do not place fingers or uninsulated tools inside the control box. Touching wires or other parts inside the enclosure may cause electrical shock, serious injury or death.
- 9. It is your responsibility to keep all warning labels and instructional literature legible, intact and kept with the door. Replacement labels and literature are availale from ASI Doors, Inc. or its representatives.
- 10. If you have any questions, contact your supervisor or your local ASI Doors, Inc. representative for assistance.
- 11. Train all service and personnel using or near door on intended use(s) and operation of the door.
- 12. Failure to operate the door as intended, as described, or heed any warning may result in equipment damage, property damage, serious bodily injury or death.

Warranty Policy

ASI Doors (herein called "ASI") warrants solely for the benefit of its customer that each door system manufactured by ASI (each a "Door System") will be free from defects in material and manufacture for a period of one (1) year from the date of original shipment by ASI. The following models receive a similar two (2) years from date of shipment warranty: 109, 209, 120-125, 1240-125-, 1240SS-1250SS, 1260-1270, 1260SS-1270SS, 130-135, 140-150, 160-170, 220-225, 220SS-225SS, 230-235, 230SS-235SS. In all instances warranty labor is covered for a period of one (1) year from the date of original shipment.

The foregoing limited warranty shall not apply to defects that result from improper installation, abuse, misuse, alteration, modification, or failure to maintain the Door System in accordance with the ASI Owner's Manual. Periodic maintenance and adjustment of the Door System as described in the ASI Owner's Manual are the sole responsibility of the customer. All claims for defects must be made to ASI within thirty (30) days after the defect is discovered or should, with reasonable care, have been discovered. THE FOREGOING LIMITED WARRANTY CONSTITUTES THE EXCLUSIVE WARRANTY OF ASI WITH RESPECT TO THE DOOR SYSTEM. ASI EXPRESSLY DISCLAIMS ALL OTHER GUARANTEES OR WARRANTIES—WHETHER EXPRESSED, IMPLIED, OR STATUTORY, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

If a Door System does not comply with the foregoing limited warranty, and a claim is made by customer within the warranty period, ASI will, at the option of ASI, either repair or replace any defective equipment or parts free of charge and pay the reasonable labor costs to repair or replace the defective equipment or parts if within the defined warranty period. The remedy of repair or replacement shall be the exclusive and sole remedy for any breach of the foregoing limited warranty.

ASI SHALL NOT IN ANY EVENT BE LIABLE FOR ANY INCIDENTAL, INDIRECT, SPECIAL, EXEMPLARY OR CONSEQUENTIAL DAMAGES OF ANY KIND, INCLUDING WITHOUT LIMITATION ANY LOST PROFITS, ARISING FROM THE SALE OR USE OF THE DOOR SYSTEM, OR FROM ANY OTHER CAUSE WHATSOEVER, WHETHER THE CLAIM GIVING RISE TO SUCH DAMAGES IS BASED UPON BREACH OF WARRANTY (EXPRESSED OR IMPLIED) BREACH OF CONTRACT, TORT, STRICT LIABILITY OR ANY OTHER THEORY OF LIABILITY, EVEN IF A PARTY HAS BEEN ADVISED OF THE POSSIBILITY THEREOF, AND REGARDLESS OF ANY ADVISE OR REPRESENTATION THAT MAY HAVE BEEN RENDERED BY ASI CONCERNING THE SALE OR USE OF THE DOOR SYSTEM.

At ASI's request, customer shall return to ASI for inspection any Door System for which a warranty claim has been made, F.O.B. ASI's facility with freight prepaid. The customer is responsible for any removal costs.

The customer shall comply with the following procedures in filing a warranty claim with ASI:

1. Notify ASI of any and all defects in writing with photographic evidence. ASI will review the warranty request and issue a Returns Merchandise Authorization (RMA) form if the defective parts need to be returned to ASI for inspection and verification. The RMA form must accompany any materials returned for warranty consideration.

2. All replacement parts or equipment will be invoiced to the customer. Upon verification by ASI that the Door System is defective, ASI will issue a full credit to customer for the replacement parts or equipment.

3. If outside labor is needed to install the replacement parts or equipment, ASI requires a written estimate of the labor charges in advance so ASI may approve the labor charges and issue a purchase order. ASI will not accept any labor charges unless previously approved in writing and accompanied by the ASI purchase order number.

(Rev 12/21)

Crates and Contents



Upon receipt of the shipment, check that you have received the correct number of pieces as shown (figure 1). Crate will contain the side-covers, the header assembly, the loose parts box, and control box. For your protection, note any damages or shortages on the carrier's bill of lading before signing the bill for receipt.

The installation of this door will require at least a two man crew and a fork-lift. Select a fork-lift with lifting height based upon the height of the door, plus a minimum additional two feet.

NOTE		Loose Parts	
 Because of variances in the constr on which the door will be mounted fasteners are not supplied. For pro- of the door, we recommend the us DO NOT remove door sections fro you encounter the step in which the installed. Unless specifically called out as "P ASI", installer is to provide all necessification hardware, anchors, inserts, hanger and equipment needed to install do dance with final shop drawings and manufacturer's instructions. 	Installation I pper anchoring se of thru-bolts. Se of thru-bolts. Schematic Schematic	ng tion Devices As me Plate Assembly <u>osure Box</u> ant rive	Qty. 1 Ordered 1 1 1 2 1 s Ordered

Door Measurements

1. Make contact with the person responsible at the customer's place of business – check access conditions and

prevailing safety practices.

- 2. First check the dimensions of the construction opening. The exact measurements can be found on the production sheet supplied with the **door**.
- 3. Carefully unpack the door and check the various components:
 - Left and right side frames.
 - Roll-up mechanism and installation manual included in the packing list.
 - Control box, wiring diagram, photo eyes and cable for anti-roll off switch.
 - Fasteners for the door, the operating controls and other accessories.



Tools Required

Description	Qty.	Hammer	1
Tape Measure	1	Screw Drivers	
Water Level Pencil General Purpose Pliers Wire Cutters Wire Strippers Digital Volt/Ohmmeter Silcone Caulk Gun	1 1 1 1 1 1	Extension Corder Electric Screwdriver Electric Drill Set of Metal Drill Bits 1/4" to 5/8" Hammer Drill Set of Contrete Drill Bits 1/4" to 5/8	1 1 1 1 3"

Face Frame Installation

NOTE

Note only ASI Doors qualified personnel are authorized to carry out this work.

Assembly on the floor:

- 1. Cut the tie wraps on the reintroduction block.
- 2. Remove one bearing from each reintroduction block.
- 3. Insert the black plastic side track of each side door post into the reintroduction block while the steel bracket goes on the outside of the header bracket.
- 4. Center black track in reintroduction block and re-attach each bearing.
- 5. Attach both side door posts to the roll/header bracket using two studs. Nuts provided in loose parts bag.

Note: reintroduction blocks flex towards center of opening during door opening and closing.

Do not restrict movement of reintroduction blocks.

3

NOTE: reintroduction

block moves during door

opening and closing. The

stud is tight, but allows

DO NOT ADJUST IT!

to pivot.

the reintroduction block

Header Installation



Caution protect the drum and door panel during installation of the door.

Lifting The Door: Lift the door using the fork lift, and move it to the construction opening.



Figure 5: Lifting of the Door

Header Installation Continued

A CAUTION

Caution the attachment of the foll assembly and the door posts to the wall must be carried out with appropriate methods. The installer must ensure that the fasteners are suitable for the size of the door and the type of walls; if necessary, increase the number of the fasteners used.

Checks before the Installation of the Door:

- 1. Measure the floor for level from left to right side and shim under side door posts if necessary.
- 2. Place the entire structure around the construction opening.
- 3. The inner dimension B, between the black plastic door guides, must be equal to the width of the door opening stated on the production data sheet and customer order form that has been supplie with the door.
- 4. Please ensure that the parts are level/plumb (roll assembly and door posts)



INSTALLATION

Panel Installation

Inserting The Retaining Straps Into The Side Guides:

Remove the protective packaging of the roll assembly without damaging the curtain.

Lower the door down manually by turning the motor with the extension piece supplied at the bottom of the control box and insert the guiding cord into the reintroduction block.













Figure 8: Correct Position Of The Curtain With Door Open

Panel Installation Continued

Important Tips To Install The Door Properly:

- Insure the bottom of the door curtain is taught but not too tight when closed. A curtain that is too tight will prevent the door from closing properly.
- Locate and attach the posts to the wall with the mounting screws in the center of slots for adjustment later if needed.
- Repeat this operation with the bottom of curtain at several different heights, to ensure a correct position of the side door posts for optimum operation and sealing.



Install The Door Correctly:

insure that when curtain is lowered that alignment is even from side to side. There should be no puckering or distortion of curtain when it is raising or lowering. If header has been installed level, and side frames installed plumb and at the correct width, there should be no puckering of curtain. If there is, loosen screws in slots of side frames and adjust their position slightly to allow curtain to hang and run freely and straight.



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WARNING

Warning lock the main power disconnect switch (with a padlock) before doing this.



Caution use of a powered drill or impact driver is NOT recommended, and may damage the motor or hex drive.

Panel Installation Continued

Apply Lubricant & Manual Release Decals:

- 1. Open the door manually with the supplied hex drive.
- 2. Lower curtain manually to expose about 4 feet of curtain.
- 3. Apply a small amount of lubricant to profile on left and right sides of door curtain. Lubricate around circular profile of curtain edges. Wipe off excess so that only a light film is left (Figure. 13).
- 4. Raise curtain manually so that it is about 4" above the door opening
- 5. Reinsert the profile assembly into the reintroduction block on both sides. (Figure. 7 Page 13)
- 6. Decal install for optional manual release feature:
 - A. Close door.
 - B. Locate manual release notch.
 - C. Clean area for decal next to manual release notch.
 - D. Apply decal at edge of curtai per detail in Figure 13 below, depending on manual release direction.



MANUAL RELEASE DECAL

FRONT SIDE OF CURTAIN

Figure 13: Curtain Detail Showing Lubrication & Location Of Manual Release Decals

If Manual Release direction,

place decal on this side.

Frequency Inverter

Precautions With The Frequencey Inverter:

When a frequency inverter has power supplied to it, the electrical elements and a number of operating controls are also 'live'. Never touch these elements. This is extremely dangerous. The cover of the frequency inverter must always be closed.

When the emergency stop is activated, the frequency inverter remains 'live'. If this is a threat to the safety of the staff, the power circuit must be interrupted by locking the main switch on the control box.

After turning off and locking the main power switch, it is always necessary to wait 5 minutes before starting work. This is the time required to discharge the capacitors of the frequency inverter.

The frequency inverter has integrated safety systems for stopping the door. A mechanical block, fluctuations in voltage and interruptions of the power supply, can also bring a door to a stop. This is shown with a fault message on the frequency inverter screen. After locking the main switch, and having removed the blockage, the main switch has to be unlocked and the door opened manually to re-charge the frequency controller.

In the event of work (on the electrical and/or mechanical part of the installation), the power supply to the frequency inverter must be switched off; to do this, the main switch on the control box must be locked.

Warranty and Liability

WARNING

Warning check all warnings weekly. Door may unexpectedly close. Failure to mount and maintain all warnging labels and instructional literature could result in death or serious injury.

Two warning labels are provided (figure 14). Mount the warning labels approximately 60" from the floor. One label should be on the operator side on the mounting wall surface. The other label should be located on the other side of the wall, opposite of the operator.



Warranty claims will only be considered if the door was being operated and treated correctly. In the event of unauthorized repairs and modification to the construction and the operation of the door, the warranty will be invalidated. This rule also applies to damage resulting from defects that are the consequence of failure to follow the operating instructions or of inadequate maintenance of the the door.

Electrical Controls

WARNING

WARNING control box contain HIGH VOLTAGE! The following procedures should be performed by qualified personnel only. Wiring must meet all local, state federal and international or other governing agency codes. Keep hands and body parts clear of high voltage areas. Failure to do so could result in death or serious injury.

WARNING disconnect power at the fused disconnect during all electrical or mechanical service. Disconnect must be properly locked out during maintenance or service or equipment. Failure to do so could result in death or serious injury.

NOTE

NOTE wiring must be completed by a licensed electrician. All wiring connections must be in accordance with alllocal. state, federal, NEC or other governing agency codes. Reference electrical drawings shipped with door.

NOTE refer to electrical schematic for connections.

- 1. Make sure prewired cable supplied is of sufficient length to enable location of control box where desired. Mount control box to a convenient location, leaving sufficient room for control box door to be opened.
- 2. All wiring should be installed and connected by a qualified electrician who is knowledgeable with NEC article 430 and with local regulations. Electrician should make sure that the voltage and frequency of the electrical supply corresponds with the motor data listed on the control box cover.

CAUTION

CAUTION protect and cover all electrical components inside the control box prior to drilling enclosure. Failure to do so may result in component malfunctions.

Electrical Controls Continued



NOTE fused disconnect complying with applicable electrical codes must be supplied by others.

- 1. Prewired cable from motor must not be spliced. Run this cable to control box (Figure 15).
- 2. From a fused disconnect, route power supply wires to the control panel and connect to terminal blocks"L1", "L2", "L3". Also attach a ground to control panel terminal.
- 3. All connections for motor, encoder, photoeyes, anti-roll switch, and any activation devices should bemade per the schematic. All wiring connections from harness must be terminated in the control box (see Figures 15 & 16).





Figure 15: Wiring Installation

Electrical Controls Continued

Install the control box at a location agreed with the user. Check that the power supply agrees with the connections of the transformer, motor, and frequency inverter. If necessary, modify.

Connect the following in accordance with the electrical diagram and the specific notes supplied with the door:

- The motor- DO NOT SPLICE THE SUPPLIED HIGH VOLTAGE MOTOR CORD IT HAS SHIELDING THAT IS REQUIRED FOR PROPER DRIVE OPERATION.
- The wires for the absolute encoder that controls the OPEN/CLOSED positions of the door.
- The photoelectric cell wires from each side frame (see illustration below for routing non-drive side cable).
- Opening and Interlocking control devices.

Activate the emergency stop button and check whether the the magneto-thermal main switch is off. Check that the power cable is not 'live' and connect the switch to the power supply.



Electrical Controls Continued

The ASI Doors Door controller monitors all operations of the door.

You use this device to:

- Define the automatic close timers
- Monitor and troubleshoot the input connections
- Interpret and correct any malfunctions or alarms

Note: The door will not run until the controller display reads 'Ready'.



Figure 17: Controller

Electrical Installation

CAUTION

CAUTION ensure that the incoming supply for the door is compatible with the transformer, motor, and inverter.

Frequency Inverter Voltage Range: 120 V = Single Phase 480 V = 3 Phase 230 V = Single Phase or 3 Phase 208 V = Single Phase or 3 Phase Failure to ensure compatible power supply may result in fire and will damage the door.

CAUTION

CAUTION refer to the electrical schematic shipped with the door for appropriate circuit protection.

CAUTION ensure that the electrical installation for this door complies with the national electrical code (NEC) and/or your local electrical code.

Primary Connections

1. Connect the incoming power. CAUTION: run the wires (conduit) through the BOTTOM of the control box, up the left side, and connect them into the terminal strip or optional disconnect. (See Figure 18). Bringing in power from the top of the control box will void the warranty.

- For a 3-phase unit, use terminals L1, L2, and L3.
- For a Single Phase unit use terminals L1 and L2.



Figure 18: Power Connections in he Control Box

Photoeye Connections

CAUTION

CAUTION use only the motor cable provided. Do not splice the cable. Doing so will void the warranty.

Make the Primary Connections:

- 1. Connect the grounding wire (ground wires and shield wire) to the ground terminals. (See Figure 19)
- 2. Connect the motor wires (black) to terminals T1, T2, and T3.
- 3. Make the Anti-Roll Switch connection to the Terminal Strip.



Figure 19: Ground Connections on Terminal Block

Photoeye Connections

- Connect the photo-eye wiring to the photoeye base. See figure 22.
- Connect the white wire in the grey transmitter cable to terminal 5 on photo-eye amplifier base.
- Connect the shielded wire in the grey transmitter cable to terminal 7 on photo-eye amplifier base.
- Connect the white wire in the black receiver cable to terminal 6 on photo-eye amplifier base.
- Connect the shielded wire in the black receiver cable to terminal 8 on photo-eye amplifier base.
 <u>Photo Eye Connections - CONFIRM WITH ELECTRICAL DRAWINGS</u> <u>SUPPLIED WITH DOOR</u>
- 2. Plug the photo eye amplifier into the 11-pin socket. See figure 20
- 3. Confirm set up of the amplifier. See figure 42 & 43 on page 36.



Figure 20: 11 Pin Socket For Photoeye Amplifier

GND Õ L1 Ø 12 L3 Ø T1 T2 0 Τ3 Ø Terminal Strip 1 Ø \otimes Ó 1 1 1A **1B** X2 X2 Ø 2 Ø 3 0 6 Ø 4 8 Ø WDD

Figure 21: Terminal Strip, Wireless Detector, And Photo-Eye Amplifier



Wireless Detector

Base

Photo-Eye

Amplifier

P.E. 2 Upper Photoeyes (Optional - Extra Photoeyes)



Photoeye Connections Continued



NOTE two sets of photoeyes are shown—one photoeye set is standard, the 2nd photoeye set is optional. The grey (Transmitter) and black (Receiver) locations on the side frames are reversed forthe upper (2nd) photoeye set installation as shown below.



Figure 23: Photoeye Arrangement With Two Sets Of Transmitters And Receivers Installed

Encoder Connections



Figure 24A: Attach Encoder Cable

Connect the Encoder:

- 1. Attach encoder cable to bottom of the encoder located on the operator (see Figure 24A).
- 2. Route cable to control box.
- 3. Trim excess cable and strip about 1" of outside insulation off of cable end (Figure 24B).
- 4. Unwind outside shield wire and twist back together (Figure 24C).
- 5. Remove foil and strip the remaining wire tips off (Figure 24D).



Figure 24B: Strip Insulation



Figure 24C: Wind Wire Shield



Figure 24D: Strip Wires

Encoder Connections Continued

- 6. Insert the wires into the green connector as listed below. Terminals are ordered left to right (see Figure 24E).
- Shield = Terminal 1
- White = Terminal 2
- Black = Terminal 3
- Red = Terminal 4
- Green = Terminal 5
- 7. Insert the green connector into the Controller. See Figure 25.



Figure 24E: Wiring the Green Connector



Insertion point for green connector

Figure 25: Insertion Point For The Green Connector

Wiring Accessories

Run Wire for Accessories:

Run the wiring for the activation accessories but do not connect them. See the appropriate appendices in this manual for wiring. Connect the activation accessories after the installer has finalized the door.



WARNING read and understand the Start-Up procedure in this manual before attempting to power-up the door. Failure to do so could result in damage to the door and/or death or serious injury to the installer and will void the warranty.



Figure 26: Main Disconnect

Turn on the Main Power:

The controller display should read SET LIMITS on initial power up. See the section titled "Set Door Limits" for more information on setting the door's limits.

Final Checks and Verification

Finalizing the door includes setting the door's open and close limits, ensuring that the door works properly, and connecting the activation accessories.

Note: An electrician should connect the accessories to the terminal block if possible.

Before you begin:

- Verify that the wiring is properly connected and the control box has power.
- Confirm that the connections are properly grounded.
- Confirm that the cable connections are positioned in their terminal slots correctly. (Photoeyes and Reversing Edge)

Setting Door Limits

CAUTION

CAUTION automatic activations should be disconnected prior to setting limits. If connected the door may activate and injury or damage may occure.

The Controller controls and monitors the curtain's open and closed position. Once you set the all the limits, test the door to ensure that it is working properly.

CAUTION

CAUTION confirm that all electrical connections are properly wired and terminated before powering up. Refer to the wiring diagram that was stored in the control box.

- 1. Enter the programming mode.
- 2. Press and hold both PROGRAM buttons until display changes to password. After display changes, release buttons. See figure 27.
- Press and release one of the PROGRAM buttons to scroll up or down until the password, 777, displays in the LCD.
- Press and release the ENTER button. Limit set displays in the LCD. See figure 28.



NOTE on initial start up the password screen will be bypassed, and the controller will directly enter the LimitSet screen. See Figure 28. If this is the initial startup, skip step #1 & #2 and go to step #3. If not, start at step #1.



Figure 27: Controller Program Mode



NOTE

NOTE The door is out of phase if it moves up instead of down. Turn power off and switch T2 & T3 on the terminal block. Turn power on and return to step one.

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Setting Door Limits Continued

- 3. Set the close limit position.
 - Press and release the Enter button. ClsLimit displays in the LCD.
 - Press and release the Enter button. JogToCls displays in the LCD.
 - Press the JOG DOWN button to bring the door down to desired close position. See Figure 29.
 - Press and release the ENTER buton to save limit setting. ClsLimit_Set - OK displays in the LCD.
- 4. Set the photoeye shut-off position.
 - Press and release one of the PROGRAM buttons to scroll up or down until the PhtLimit message displays in the LCD (photo eye shut off position). See Figure 30.
 - Press and release ENTER button. JogToPht_Enter displays in the LCD.
 - Press the JOG UP/RESET button to bring door up one inch above the photo eyes.
 - Press and release the ENTER button to save limit setting. PhtLimit_Set—OK displays in the LCD.





Setting Door Limits Continued

- 5. Set the open limit position.
 - Press and release one of the PROGRAM buttons until the Opn-Limit message displays in the LCD.
 - Press and release the ENTER button. JogToOpn_Enter displays in the LCD.
 - Press and release the JOG UP/RESET button until the door is in the desired open position (see Figure 31), roughly an inch and a half above the reintroduction point (see Page 13, Figure 8 for correct positioning layout).
 - Press and release the ENTER button to save limit setting. Opn-Limit_Set—OK displays in the LCD.
- 6. Press and release the MENU button twice. Ready displays in the LCD. See Figure 32.
- 7. Press the JOG buttons to test the open and close limits. Install and test activation accessories.



Figure 31: JOG DOWN Button



Install Activation Devices

Install and Test Activation Accessories:

The controller has nine inputs. Inputs are signals coming to the controller that get interpreted to create a certain response. For example, if a pull cord is wired to terminal 2, pulling the cord sends a signal to the controller. The controller knows what the signal is based on the assigned input (terminal 2), thus moving the door up or down. All the inputs have indicator lights and identification. See figure 33.



Figure 33: Accessory Inputs

CAUTION

CAUTION install, connect, and then test each of the activation accessories individually before proceeding to the next accessory. This allows troubleshooting of each component individually.

Set Timers

The open run timer and close run timer act as a failsafe to prevent the door from running continuously when the open or close limit switch fails to stop the door. These timers should be set for a period that exceeds the duration of a full open or close cycle.

- Press and release the open run timer button. Opening_time=## displays in the lcd. See figure 34.
- Press and release the program buttons to change the countdown time to the desired duration. See figure 35.
- The controller automatically saves the changes.
- Press and release the close run timer button. Closing_time=## displays in the lcd.
- Press and release the program buttons to change the countdown time to the desired duration. The controller automatically saves the changes.



Figure 34: RUN TIMERS Buttons



Set Timers Continued

Set The MC/PB Timers:

The MC/PB timer activates a countdown timer for use with an activation installed on terminal number 2 (most commonly used for pull cords or push buttons). The MC/PB timer may be turned on or off, enabling manual operation or automatic operation by assigning a countdown value to the timer.

- Press and release MC/PB close timer button. MC Delay_Time=## displays on the LCD. See Figure 36.
- Press and release the PROGRAM buttons to change the countdown time to the desired duration
 - (Maximum time 99 seconds). See Figure 37.
- The Controller automatically saves the changes.



NOTE

NOTE if the value is set to zero, the timer is deactivated and the activations put on terminal number 2 are now in manual operation. Press and release the PROGRAM buttons to change the countdown time to the desired duration.



Set Timers Continued

Set The AC/LOOP Timer:

The AC/LOOP timer activates a countdown timer for use with a motion detector or floor loop. The AC/LOOP timer is also used when the reversing edge is triggered

- Press and release AC/LOOP close timer button. AC Delay_Timer=## displays on the LCD.
- Press and release MC/PB close timer button. MC Delay_Time=## displays on the LCD. See Figure 38.
- Press and release the PROGRAM buttons to change the countdown time to the desired duration (Maximum time 99 seconds). See Figure 39.
- The controller automatically saves the changes.



NOTE

NOTE if the value is set to zero, the Door will come down when it reaches the open limit, after receiving an AC/Loop input, a reversing edge input, or a Photo-eye input.



Calibrate AWDD Reversing Edge

Advanced Wireless Detection Device (AWDD):

The AWDD receiver provides a wireless connection to the bottom edge of the curtain.

- 1. Turn on the main control panel.
- 2. The receiver MUST be paired with the door.
- 3. On the receiver if 2 solid RED lights arelite, then go to the PAIRING instructions. If not, then go to the CLEAR/RESET instructions.

PAIRING Instructions (AWDD):

- 1. Lower door to allow for access to bottome edge.
- 2. Press & release pairing button, LED lights will both turn solid GREEN.
- 3. While both lights are GREEN (approx. 10 seconds) activate the edge on the curtain (if lights return to RED status repeat step 2).
- 4. Receiver light should blink both lights GREEN twice, then turn sold GREEN
- 5. With both lights GREEN press pairing button again to complete the pairing process.
- 6. At this time only 1 GREEN light should be lite.
- 7. Test edge, the GREEN light should blink twice when activated.
- 8. Unit is now ready to run.



NOTE the alarm status light will blink approximately every 5 seconds.

CLEAR/RESET Instructions: (AWDD):

- 1. Press & release pairing button, repeatedly until 1 solid GREEN light is on.
- 2. Press & hold until both GREEN lights flashes (min. of 5 seconds)
- 3. While flashing press & release pairing button 1 time (must be done within 5 seconds of both).
- 4. Once released both lights should be solid RED within 3 seconds.
- 5. Go to pairing instructions set sync transmitter to receiver.



Photocell Installation and Set-Up

- 1. Confirm Photocell Amplifier is seated properly in gray eleven-pin socket.
- 2. Confirm adjustment knob is in the auto position.
- 3. Confirm power on.
- 4. Lights 1 & 2 will illuminate green. Lights 3 & 4 will illuminate amber. Refer to Figure 42.
- 5. After door limits are set, verify operation of photocells by blocking beam and assuring the door reverses.
- 6. Under normal operations lights 3 & 4 will go out when beam is blocked.
- L1 Illuminated if in Auto Mode
- L2 Illuminated to DIP Switch one's setting:
 - A = Green
 - B = Amber
- L3 Indication of operation:
 - Red = Alarm Condition
 - Amber = Good Signal

Non = Beam broken or alignment switch turn on.

L4 - Illuminated when beam not blocked.

DIP Switch Description:

DIP Switches come preset and need not be adjusted unless otherwise advised. Refer to Figure 43.

DIP Switch 1 - Controls the switch code A or B.

- Code A Single photocell
- Code B Two sets of photocell, avoids crosstalk between them

DIP Switch 2 - Alignment of photocell.

- ON Able to tune photocell via manual adjust dial/ physical alignment of photocell. L3 will illuminate steady for a strong signal or blink slowly for a weak signal.
- OFF Normal operation/L3 illuminated.

DIP Switch 3 - This switch selects the power gain. Low or High.

DIP Switch 4 - Power level 50% or 100%.

DIP Switch 5 - Selection on output contact N/O or N/C.

DIP Switch 6 - DIP Switch needs to be left in Alarm position, used to alarm when photo eyes shorted or malfunctioning.

Install Covers:

As a final step, ensure that all Covers are installed on the Door.

- Motor / Fabric Roll
- Side Guides



Figure 42: Photoeye Amplifier Controls



Figure 43: Photoeye DIP Switch Presets

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Error Messages

Message Display	Trouble Shooting
Ready ####	All required connections are correct and the door is ready for operation. The number indicates the cycle counter. The Controller will not allow the door to operate unless this message displays.
Pull Cord	The pull cord activation input terminal # 2 has a closed connection. Check all activation devices and make sure they are wired on thenormally open input. Get for stuck pull cords or push buttons.
Motion/Loop	The motion detectors activation input terminal # 3 has a closed connection. Check all activation devices and make sure they are wired on the normally open input. Check sensitivity on activation device wired into terminal #3.
E-stop/Reset	The E-stop button is not releases so the door can operate. Check E-stop button, make sure jumper wire is installed into terminal #1 &1A if a remote E-stop button is not used.
Drive Error	A drive error occurred. Check VFD display for error code if "dcb" is displayed check the wiring to the VFD. If any other message is displayed on the VFD, check all wiring connections to the "T" and "L" leads. Verify the proper voltage is being supplied to the control panel. Verify that there are no motor disconnect switches turned off.
Photo Eye	The photo eye is not wired properly. Check wiring, make sure the eyes are aligned. Check for damaged eye. Check gain levels. Replacement of eyes may be necessary.
Rev - Edge Tripped	The reversing edge or anti-roll switch is tripped. The reversing edge is a normally open circuit and will not fail open, the door will continue to operate with out the edge. Also check any other reversing device that may be wired into terminal and input # 4.
Opening Expired	The open run time timer expired. Press and release the E-stop button to clear the fault. Jog the door open and closed and verify there are no mechanical problems. The open run timer may be set too low. Press the "open run timer" and increase the second with the "program up arrow" (usually 10 seconds is sufficient).
Closed Expired	The close run time timer expired. Press and release the E-stop button to clear thecfault. Jog the door open and closed and verify there are no me- chanical problems. Thecclose run timer may be set too low. Press the "close run timer" and increase the second with the "program down arrow" (usually 10 seconds is sufficient unless the closing speed has been slowed down).
SET LIMITS	The limits have not been set. Set limits (see Section "Setting Door Limits" for instructions.)
ENCODERCOM_LOSS	The encoder is not communicating with the controller. Check the wires con- nections on the harness that plugs into the controller for loose connections. The encoder may be damaged and may need to be replaced.
The display screen is blank.	Check fuse # 6. Check incoming power, make sure the harness is plugged into the controller.
The door reverses before reaching the closed limit.	See "Anti-Roll Switch" trouble shooting section, page 44-45.

Table 1-1: Controller error messages

Preventative Maintenance

WARNING

WARNING remove power at the fused disconnect during ALL electrical or mechanical service. Disconnect MUST be properly locked out during maintenance or service of equipment. Failure to do so many results in death or serious injury.

NOTE

NOTE for monthly and quarterly inspections, record the date of inspection and the cycle count. The cycle counter is located in the control box. Recording daily inspections is usuall not necessary.

	Daily	Monthly	Quarterly
Curtain Inspection			
Test Door Operation			
Inspect All Activation Devices			
Test Reversing Edge and Photoeyes			
Inspect Re-Introduction System			
Inspect Side Guides			
Inspect Cabling			
Inspect all Mounting Hardware			
Inspect Operator Assembly			
Inspect Electrical Control Box			
Door Lubrication and Cleaning			
Inspect Bearings			

<u>Daily</u>

- 1. CURTAIN INSPECTION: Visually inspect the door for any damage that may be present. Example: Condition of the welds, condition of the bead. Clean curtain with soft cloth soaked in water, if necessary mixed with a soft cleaning agent.
- 2. **TEST DOOR OPERATION:** Run the door several cycles to see if the door is operating properly. Check to see that door is operating smoothly with no binding or unusual noises. Make the necessary adjustments if the door is not operating correctly. Do not leave the door in operation if a problem exists.
- **3. INSPECT ALL ACTIVATION DEVICES:** Inspect all activation devices to insure proper actuation of the door. Make the necessary adjustments if the door is not operating correctly. If activation devices are not functioning, the door should be immediately taken out of service.
- 4. TEST REVERSING EDGE AND PHOTOEYE: The reversing edge and photoeyes should be checked on a daily basis as outlined in the instruction manual. While the door is traveling to the closed position, test reversing edge for proper operation. Also, check reversing photo-eye to ensure proper operation when the beam is interrupted. Make the necessary adjustments if the door is not operating correctly. Do not leave the door in operation if a problem exists.

Preventative Maintenance Continued

<u>Monthly</u>

- **1. INSPECT REINTRODUCTION SYSTEM:** Visually inspect reintroduction block for any physical damage. Bearing wheels should movefreely.
- 2. **INSPECT SIDE GUIDES:** Visually inspect side guides for any physical damage. Make sure black side guide extrusion doesn't move up or down more than 1/8" during door operation.
- **3. INSPECT CABLING:** Check fittings on cables and harness for any breaks or cracks. If damaged repair or replace immediately. Check condition of the electrical connections.

Quarterly

- **1. INSPECT ALL HARDWARE:** Insure that all bolts, screws, anchors and welds are intact and securely fastened.
- 2. **INSPECT OPERATOR ASSEMBLY:** Over time due to heavy operating cycles, the bolts associated with the drive unit could become loose. Check to insure that all bolts are secure on the drive motor assembly. Examine the entire drive system for any sign of leaking or broken seals. Replace as necessary.
- **3. INSPECT ELECTRICAL CONTROL BOX:** Disconnect power before opening panel cover. Check electrical box for any loose parts or wires. Repair and replace as necessary. Check all circuit relays and timers to ensure their proper operation. Replace if necessary. Reminder: record the number of cycles at each monthly and quarterly inspection.
- **4. DOOR LUBRICATION AND CLEANING:** As with any piece of moving equipment, lubrication can increase the efficiency and life of the product. Clean and lubricate as necessary.
- **5. INSPECT BEARINGS:** Check barrel bearings to ensure they are tight and holding the barrelwithout any rubbing. Adjust if necessary.

Mode	Information sent by the transmitter	Alarm output status: Relay 1	WDD output status : Relay 2	« Battery status » LED 1	« Alarm status » LED 2	
Normal (*Vbat>2.8V)	Battery OK	OFF	OFF	Green continuous	OFF	
Battery Low (2.8>Vbat>2.2V)	Battery Low	ON	OFF	Blue continuous	Blue continuous	
Battery very Low (2.2V>Vbat>2.0V)	Battery very Low	ON	ON	Flashing Red	Flashing Red	
Normal	Safety edge input activated (<10s)	OFF	Moments ON (1s)	Flashing Green when a WDD output is active / Else Battery status	OFF	
Cont. pressed	Safety edge input activated (>10s)	OFF	ON	Battery status	Red continuous	
Not synced / Battery discharged	Not synced with a transmitter	ON	ON	Red continuous	Red continuous	

Reversing Edge Status

*Vbat : Transmitter ELEDIVALL188 Battery tension.

Anti-Roll Switch

The door travels towards the close position and reverses open, when this happens the # 4 "reversing" input illuminates momentarily. The door usually continues to try to close and re-opens and continues this pattern until the E-stop button is pressed.

Difference between the "reversing" input and "anti-roll" switch:

Route Anti-Roll Switch wires through



Figure 44: Anti-Roll Switch location

The anti-roll switch is located on the operator side of the door in-between the curtain and the wall.

Both the reversing edge and anti-roll switch are normally open inputs and share the same #4 "reversing input". The reversing edge is hard wired into the wireless reversing device (WDD) and receives its signal only when the bottom edge makes contact with and object before reaching the close limit.

The anti-roll switch is field wired after the door is installed into the #1 & #4 terminals. The purpose of the anti-roll switch is to quickly reverse the door if the curtain un-ravels off the barrel quicker than it can come down the guides. This is to prevent damage to the curtain, and to avoid the entire curtain unraveling inside the shroud. This is a safety device and should not be disconnected unless trouble shooting.

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2 O PULL CORD/PB

REV EDGE

PHOTO DRIVE ERROR

OPEN PB CLOSE PB E-STOP/RESET

10 🔿 IN 1

MOTION/LOOP

I N P U T S



Anti-Roll Switch Continued

Trouble shooting & corrective action steps:

- 1. Insure that the guides have not been impacted and/or pinched. This will cause the door to travel to the area of damage and reverse during full speed operation. The guide will need to be replaced if the damaged area can not be pried open. Usually the door will not jog below damage in the guide.
- 2. Insure that the door has been properly lubricated with the ASI doors factory supplied lubricant. Lubrication must been applied at the time of the installation. It must also be reapplied a minimum of once per quarter, and after every hard wash down that could remove the lubricant. It may also be necessary to lubricant more often in dusty applications.
- 3. Insure that the UHMW guide is not twisted in the reintroduction block. This will cause the curtain to bind in the first few inches of travel and will cause the anti-roll switch to reverse the door. The outer bearing will have to be removed as well as the 10mm bolt. The reintroduction block will have to be removed and reinstalled in alignment.
- 4. Insure that the guides are installed plumb & square and the barrel is level (review installation instructions in the owner's manual). It may also be necessary to move one or both of the guides "in". This is usually the case in extreme air pressure applications. This will require removing the guide cover(s), loosening the mounting bolts, and moving the guide(s) in slightly.
- 5. If the application temperature, on either side of the open, is subject to falling below 35 degrees, the door may experience difficulty closing. Consult with the factory for possible option if this occurs.
- 6. Insure that the anti-roll switch is not pried away from the wall. This may require the switch to be adjusted closer to the wall.



Figure 45: Curtain entering Re-introduction Block

Instructions for Ordering

This parts manual is intended to assist in the correct identification of the more commonly replaced parts; covering, generally, all models and styles offered within the marathon pharm. Line. The manual will also help identify obsolete parts, part design changes and current production parts. For more specific parts information, please contact an authorized representative or consult the factory's customer service or engineering departments. Asi doors reserves the right to discontinue any part and make design changes without notice.

General Instructions for Ordering Door Parts

Accurate information is always necessary to serve you correctly and promptly. Several steps should be followed to determine exactly the parts that are needed.

Refer to the information tag on your doors control panel and record the:

- 1. Door model number
- 2. Job number
- 3. Door number
- 4. Manufacturing date.

Use part numbers referenced in this manual.

If the item is not found in the manual, the product code on the back of the item is helpful.

If your door has no information label, the approximate purchase date is helpful.



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Mechanical Service Parts List

Item #	Part #	Description	Qty
1	24A0105NV10	Drive drum assembly, with shafts, steel	1
1		Drive drum assembly, with shafts, stainless	1
2		Bearing, drum, steel	1
2	24A0107NN20	Bearing, drum, stainless	1
3	23A0404	Motor, gear reducer, encoder 1 hp (pre-2015)	AR
3	23A0405	Motor, gear reducer, encoder 2 hp (pre-2015)	AR
3	23A0448	Motor, gear reducer, 1 HP (2015 & later)	AR
3	23A0449	Motor, gear reducer, 2 HP (2015 & later)	AR
4	23A0406	Cable, motor (per ft)	1
5	23A0400	Encoder (inside motor cover - pre-2015)	AR
5	23A0442	Encoder (reducer mount - 2015 & later)	AR
6	23A0401	Cable, encoder (per ft) (pre-2015)	AR
6	23A0443	Cable, encoder, threaded x 5 meter (2015 & later)	AR
6	23A0444	Cable, encoder, threaded x 7 meter (2015 & later)	AR
6	23A0445	Cable, encoder, threaded x 10 meter (2015 & later)	AR
6	23A0446	Cable, encoder, threaded x 20 meter (2015 & later)	AR
6	23A0447	Cable, encoder, threaded x 25 meter (2015 & later)	AR
7	23A0402	Anti-roll switch with bracket - stainless	1
8	23A0403NV	Cable, anti-roll switch (per ft)	1
9	24A0109LV	Inner side guide with studs, black insert, left (per ft)	1
9	24A0111NV	Inner side guide with studs, black insert, left, w/ release (per ft)	1
10	24A0109RV	Inner Side Guide with studs, black insert, Right (per ft)	1
10	24A0111NV	Inner side guide with studs, black insert, right w/ release (per ft)	1
11	24A0113NN	Re-introduction assembly, w/ stainless bearings	2
12	28B0306XV	Wall clip, LH, HIC <= 120"	1
12	28B0310XV	Wall clip, LH, HIC > 120"	1
12	28B0265LV	Wall clip, LH, HIC <= 120", low profile shroud	1
12	28B0267LV	Wall clip, LH, HIC > 120", low profile shroud	1
13	28B0307XV	Wall clip, RH, HIC <= 120"	1
13	28B0311XV	Wall clip, RH, HIC > 120"	1
13	28B0265RV	Wall clip, RH, HIC <= 120", low profile shroud	1
13	28B0267RV	Wall clip, RH, HIC > 120", low profile shroud	1
14	13B1522XV	Cover, wall clip, Idler side, RH/LH drive, HIC <= 120"	1
14	13B1752LV	Cover, wall clip, Idler side, LH drive, HIC <= 120", low profile shroud	1
14	13B1752RV	Cover, wall clip, Idler side, RH drive, HIC <= 120", low profile shroud	1
15	13B1527XV	Cover, wall clip, drive side, RH drive, HIC <= 120"	1
15	13B1526XV	Cover, wall clip, drive side, LH drive, HIC <= 120"	1
15	13B1753LV	Cover, wall clip, drive side, LH drive, HIC <= 120", low profile shroud	1
15	13B1753RV	Cover, wall clip, drive side, RH drive, HIC <= 120", low profile shroud	1
16	13B1538NN	Cover, wall clip, lower, RH/LH, HIC > 120"	1

When ordering parts, specify Job Number, Door Number and Manufacture Date

Mechanical Service Parts List Continued

Item #	Part #	Description	Qty
17	13B1540XV	Cover, wall clip, upper, idler side, rh drive, HIC > 120"	1
17	13B1541XV	Cover, wall clip, upper, idler side, lh drive, HIC > 120"	1
17	13B1764LV	Cover, wall clip, upper, idler side, lh drive, HIC > 120", low profile shroud	1
17	13B1764RV	Cover, wall clip, upper, idler side, rh drive, hic > 120", low profile shroud	1
18	13B1537XV	Cover, wall clip, upper, drive side, rh drive, HIC > 120"	1
18	13B1539XV	Cover, wall clip, upper, drive side, lh drive, HIC > 120"	1
18	13B1763LV	Cover, wall clip, upper, drive side, lh drive, HIC > 120", low profile shroud	1
18	13B1763RV	Cover, wall clip, upper, drive side, rh drive, HIC > 120", low profile shroud	1
19	13B1521NN	Clip, cover, 415 roll-up	AR
-	76B0010XV	Asm, face frame, idler side, rh drive, HIC<=10'	AR
-	76B0011XV	Asm, face frame, drive side, rh drive, HIC<=10'	AR
-	76B0012XV	Asm, face frame, drive side, LH drive, HIC<=10'	AR
-	76B0013XV	Asm, face frame, idler side, LH drive, HIC<=10'	AR
-	76B0014XV	Asm, face frame, idler side, RH drive, HIC>10'	AR
-	76B0015XV	Asm, face frame, drive side, RH drive, HIC>10'	AR
-	76B0016XV	Asm, face frame, idler side, LH drive, HIC>10'	AR
-	76B0017XV	Asm, face frame, drive side, LH drive, HIC>10'	AR
20	24B0374XV	Shroud, 1 piece, RH drive, WIC <= 120"	1
20	24B0375XV	Shroud, 1 piece, LH drive, WIC <= 120"	1
20	24B0370XV	Shroud, 2 piece, RH drive, WIC > 120"	1
20	24B0371XV	Shroud, 2 piece, LH drive, WIC > 120"	1
21	28B0266LV	Shroud, 1 piece, LH drive, WIC <= 120", low profile	1
21	28B0266RV	Shroud, 1 piece, RH drive, WIC <= 120", low profile	1
21	24B0396LV	Shroud, 2 piece, LH drive,, WIC > 120", low profile	1
21	24B0396RV	Shroud, 2 piece, RH drive,, WIC > 120", low profile	1
22	16A089	Hole plug, 2.0" I.D.	1
23	13B1500NN	Shroud support, outside (not used with low-profile shrouds)	AR
24	13B1726NN	Shroud support, center (not used with low-profile shrouds)	AR
25	24A0100NV	Curtain assembly, < 45 sq. ft.	1
25	24A0101NV	Curtain assembly, < 96 sq. ft.	1
25	24A0102NV	Curtain assembly, < 175 sq. ft.	1
25	24A0115NV	Curtain assembly, < 45 sq. ft., w/ banner window	1
25	24A0116NV	Curtain assembly, < 96 sq. ft., w/ banner window	1
25	24A0117NV	Curtain assembly, < 175 sq. ft., w/ banner window	1
26	24A0103LV	Curtain bead repair, 415, LH (requires returning curtain to factory-shipping extra)	-
27	24A0103RV	Curtain bead repair,415, RH (requires returning curtain to factory-shipping extra)	-
28	17B058	Decal, manual release	1
29	05A0030NN	Spare patch material - (note color needed - white standard)	-
30	10A0041NN	Loctite adhesive for spare patch material	-
31	09A0010	Grease, DLFS- H1 food rated, 2 oz tube, SPA-9051-01	1
32	50A0174NN	6MM_Allen Wrench - (For manual operation of door)	1

Consult factory for any part not
listed, and for any questions on
replacement parts.

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Service Parts - Door Curtain



Service Parts - Motor Side



Service Parts - Idler Side



Manufacture Date

REPLACEMENT PARTS

Service Parts - Side Frames and Drive Assembly



Service Parts - Shrouds



Electrical Service Parts List

ltem #	Part #	Description	Qty
1	Consult Factory	Enclosure, control box, composite	1
2	Consult Factory	Sub panel, control box, composite	1
3	Consult Factory	Control box complete, 1 HP	1
3	Consult Factory	Control box complete, 2 HP	1
4	23A0421	ASILogix II controller board	1
5	23A0416	VFD Drive ATV11 1hp motor 110VAC	1
5	23A0417	VFD drive ATV31 1hp motor 230VAC	1
5	23A0418	VFD drive ATV31 2hp motor 230VAC	1
5	23A0419	VFD drive ATV31 1hp motor 460VAC	1
5	23A0420	VFD drive ATV31 2hp motor 460VAC	1
6	23A0429	Push button, standard	1
7	23A0430	Nameplate, push button, standard	1
8	23A0431	Emergency stop push button	1
9	23A0432	Nameplate, emergency stop	1
10	23A0433	Selector switch, airlock (optional)	1
11	23A0434	Nameplate, airlock, ON/OFF (optional)	1
12	23A0439	Terminal block, 35A, red	1
13	23A0438	Terminal block, 35A, black	1
14	23A0437	Terminal block, ground	1
15	23A0422	Fuse 0.5 Amp 600V class CC	1
16	23A0423	Fuse 2.0 Amp 250V class M	1
17	Consult Factory	Transformer, step-down, 208/230/460 50VA	1
17	Consult Factory	Transformer, step-down, 208/230/460 100VA	1
17		Transformer, step-down, 110V 100VA	1
18	23A0426	Wireless door detector receiver (DIN rail mount-no socket)	1
19	23A0427	Relay 24VAC - DPDT (optional, for special controls)	1
20	23A0428	Socket, 24VAC- DPDT (optional, for special controls)	1
21	23A0435	Contactor, 2NO, 2NC (for opt. battery backup)	1
22	23A0409	Photoeye set (Includes transmitter, receiver, amplifier)	1

When ordering parts, specify Job Number, Door Number and Manufacture Date Consult factory for any part not listed, and for any questions on replacement parts.

Service Parts - Electrical



Service Parts - Electrical Continued











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