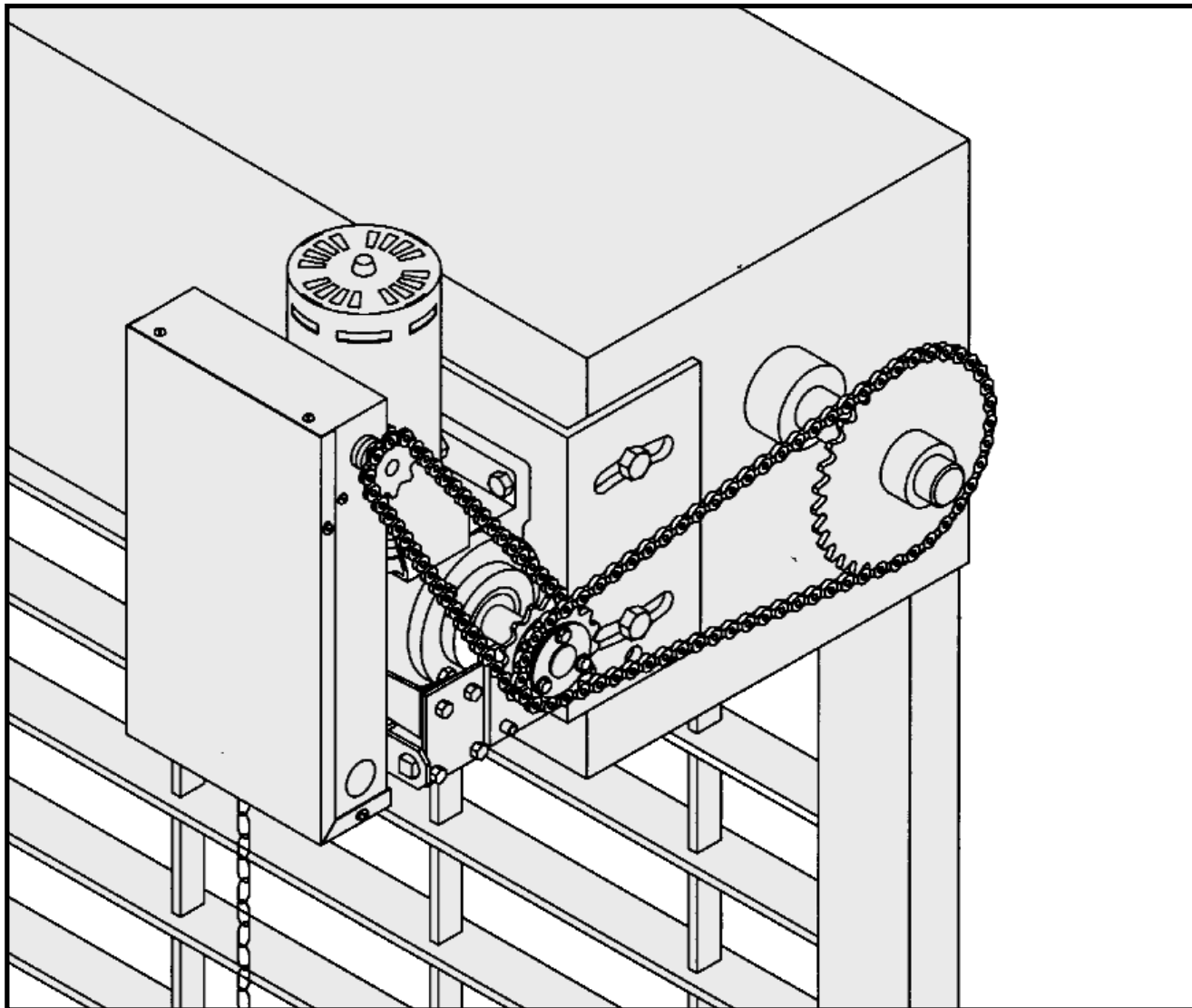


# OWNER'S MANUAL

MODELS:

**LGJ & MGJ**

**INDUSTRIAL DUTY DOOR OPERATOR**



## 2 YEAR WARRANTY

Serial # \_\_\_\_\_  
(located on electrical box cover)

Installation Date \_\_\_\_\_

Wiring Type \_\_\_\_\_

NOT FOR RESIDENTIAL USE

41B6



LISTED DOOR OPERATOR

**For more information, please visit [www.devancocanada.com](http://www.devancocanada.com) or call toll free at 855-931-3334**

## SPECIFICATIONS

### MOTOR

**TYPE:** .....Intermittent Duty

**HORSEPOWER:** .....**MGJ:** 1/2Hp 1 or 3 Phase  
**LGJ:** 1/4 Hp 1 Phase

**SPEED:**.....**MGJ:** 1050 RPM  
**LGJ:** 1725 RPM

**VOLTAGE:**.....**MGJ:** 115, 60HZ, 1Ph  
230V, 50 or 60Hz, 3Ph  
230V, 60Hz, 1Ph  
380V, 50Hz, 3Ph  
460V, 60Hz, 3Ph  
**LGJ:** 115V, 60Hz, 1Ph

**CURRENT:** See motor nameplate

### ELECTRICAL

**TRANSFORMER:**.....24VAC

**CONTROL STATION:**.....NEMA 1 three button station.  
OPEN/CLOSE/STOP

**WIRING TYPE:**       **MGJ:** B2-C2 (Factory Shipped)  
**LGJ:** G2 (Factory Shipped)

See pages 13 and 14 for optional control settings and operating modes.

**LIMIT ADJUST:** .....Linear driven, fully adjustable screw type cams. Adjustable to 24 feet.

### MECHANICAL

**DRIVE REDUCTION:** .....40:1 Reduction  
(Heavy duty wormgear-in-oil-bath speed reducer)

**OUTPUT SPROCKET:**.....Size #41

**DOOR SPEED:**.....**MGJ:** 1Ph, 23RPM  
3Ph, 39RPM  
**LGJ:** .1Ph, 43RPM

**BEARINGS:**.....Heavy duty wormgear-in-oil-bath speed reducer.

### SAFETY

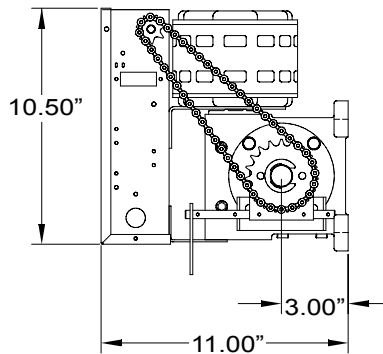
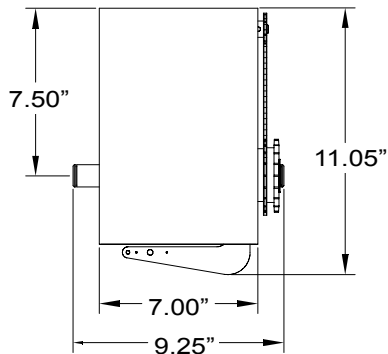
**DISCONNECT :**.....Floor level disconnect for emergency manual door operation.

**REVERSING EDGE:**.....(Optional) Electric or pneumatic sensing device attached to the bottom edge of door

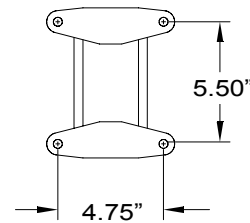
**A REVERSING EDGE IS STRONGLY RECOMMENDED FOR ALL COMMERCIAL OPERATOR INSTALLATIONS. REQUIRED WHEN THE 3 BUTTON CONTROL STATION IS OUT OF SIGHT OF DOOR OR ANY OTHER CONTROL (AUTOMATIC OR MANUAL) IS USED.**

### MGJ WEIGHTS AND DIMENSIONS

**HANGING WEIGHT:**.....80-110 LBS.

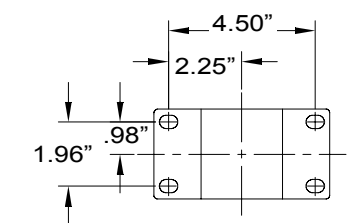
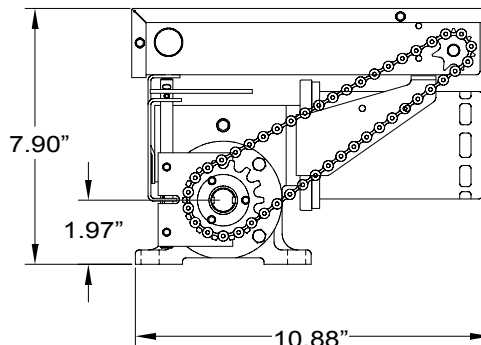
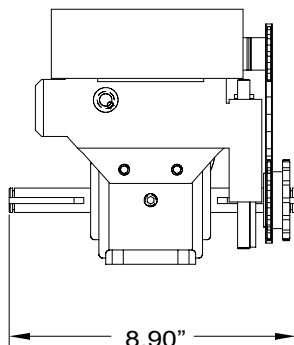


MOUNTING DIMENSIONS



### LGJ WEIGHTS AND DIMENSIONS

**HANGING WEIGHT:**.....80-110 LBS.



MOUNTING DIMENSIONS

## IMPORTANT SAFETY NOTES



### CAUTION

TO AVOID DAMAGE TO DOOR AND OPERATOR, MAKE ALL DOOR LOCKS INOPERATIVE. SECURE LOCK(S) IN "OPEN" POSITION.

IF THE DOOR LOCK NEEDS TO REMAIN FUNCTIONAL, INSTALL AN INTERLOCK SWITCH.

DO NOT CONNECT ELECTRIC POWER UNTIL INSTRUCTED TO DO SO.



### WARNING

KEEP DOOR BALANCED. STICKING OR BINDING DOORS MUST BE REPAIRED. DOORS, DOOR SPRINGS, CABLES, PULLEYS, BRACKETS AND THEIR HARDWARE MAY BE UNDER EXTREME TENSION AND CAN CAUSE SERIOUS PERSONAL INJURY. CALL A PROFESSIONAL DOOR SERVICEMAN TO MOVE OR ADJUST DOOR SPRINGS OR HARDWARE.

## SITE PREPARATIONS

It is imperative that the wall or mounting surface provide adequate support for the operator.

This surface must:

- Be rigid to prevent play between operator and door shaft.
- Provide a level base.
- Permit the operator to be fastened securely and with the drive shaft parallel to the door shaft.

The safety and wear of the operator will be adversely affected if any of the above requirements are not met.

For metal buildings, fasten 2" x 2" x 3/16" (or larger) angle iron frames to the building purlins. For proper spacing, retain .2.75" between for model MGJ, butt purlins together for model LGJ. See Figure 1.

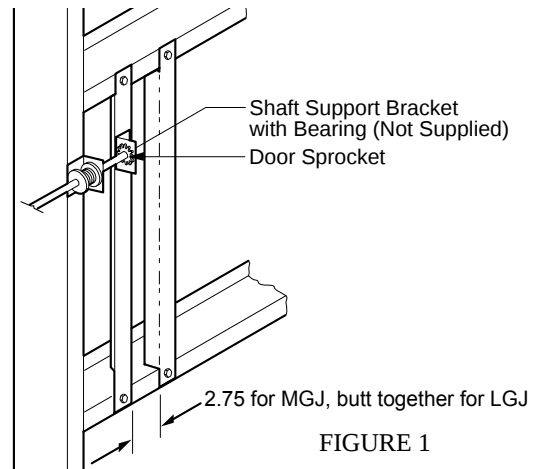


FIGURE 1

## OPERATOR PREPARATION

**Model LGJ:** Shipped from the factory for right hand mounting, refer to preparation instructions on page 4 for Left hand mounting.

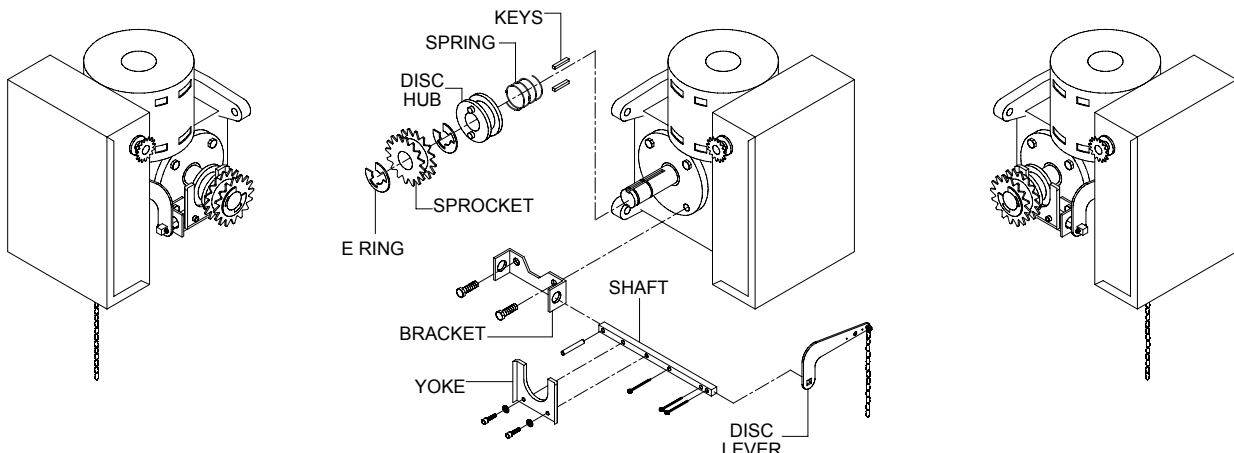
**Model MGJ:** Shipped from the factory for either left hand or right hand mounting. Refer to the last digit in the model number for handing of your unit. If necessary, model MGJ may also be field modified to accommodate opposite handing. Refer to the conversion instructions below and on page 4.

## MGJ OPPOSITE HANDING PREPARATIONS

### 1. Remove Disconnect Assembly Components

Remove the master link from the limit chain, remove the chain and set it aside.

Remove the two E Rings securing the sprocket on the gear reducer shaft. Remove the screws securing the yoke to the disconnect shaft, set the yoke aside.



Remove the three cotter pins from the disconnect shaft. Do not discard the pins. Slide the disconnect shaft out of the support bracket. The release lever will now be free inside the motor frame. Remove the release lever and sash chain from the motor frame. Slide the disconnect hub, compression spring, and flatwasher from the end of the gear reducer shaft. Remove the disconnect support bracket by first removing the two gear reducer housing screws. Replace the screws in the gear reducer and firmly tighten.

## 2. Re-assemble Disconnect Assembly

Remove the two screws on the opposite side of the gear reducer and mount the disconnect support bracket with the notched side facing the motor. For the remainder of the installation, follow the steps outlined above in reverse order, referring to the illustration as necessary.

# LGJ LEFT HAND MOUNTING PREPARATIONS

LGJ Operators are assembled at the factory to be installed in a right hand (motor side up) configuration. To install an LGJ Operator on the left hand side of your door (motor side down), complete the three steps described below.

## 1. Reconfigure Disconnect Chain Assembly

The default configuration for the disconnect chain assembly is shown in Figure 1. This configuration allows the chain to hang freely when the operator is mounted on right side only. To insure smooth operation of the disconnect chain assembly when mounted motor side down, reconfigure as described below and as shown in figures 2 and 3.

1. Disconnect the key ring from the release cable.
2. Thread the release cable through the slot on the outermost edge of the support bracket, as shown in Figure 2.
3. Re-attach the key ring and sash chain to the end of the loop of release cable.

## 2. Set Limit Switch Direction

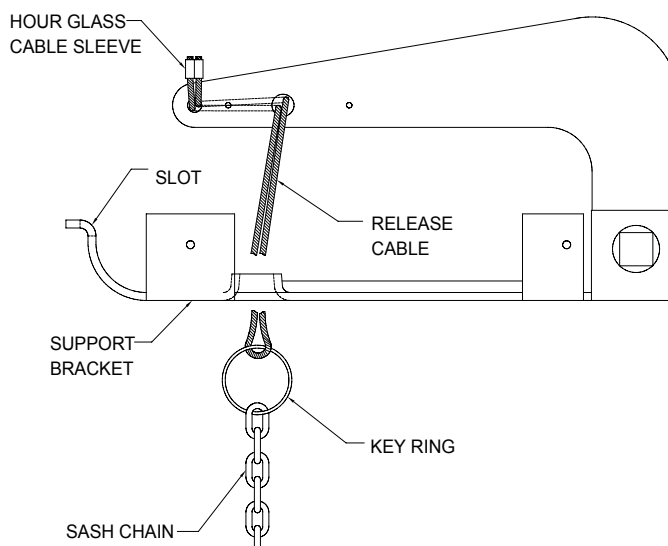
Locate Switch #1 on PCB in the electrical box. Place pole #2 of Switch #1 in the "OFF" position. With this setting limit switch labeled "A" is the close switch, limit switch labeled "B" is the open switch.

**IMPORTANT:** Refer to page 9 for complete instructions on setting of limit switches.

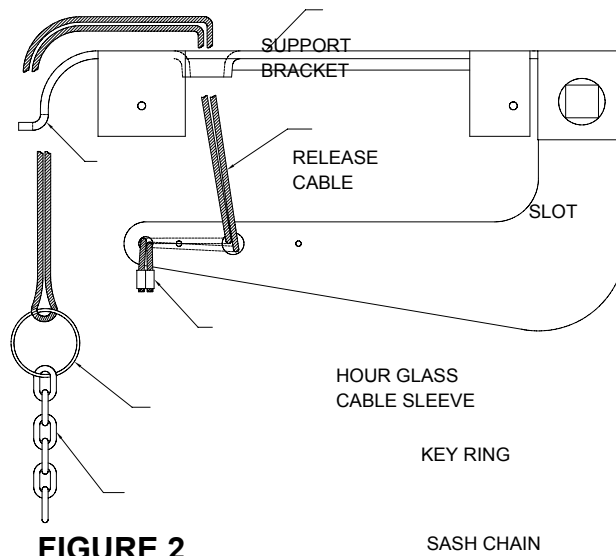
## 3. Affix Electrical Box Cover Caution Label

Place the caution label on electrical box cover such that the text is read in the opposite direction of silkscreen.

FIGURE 1

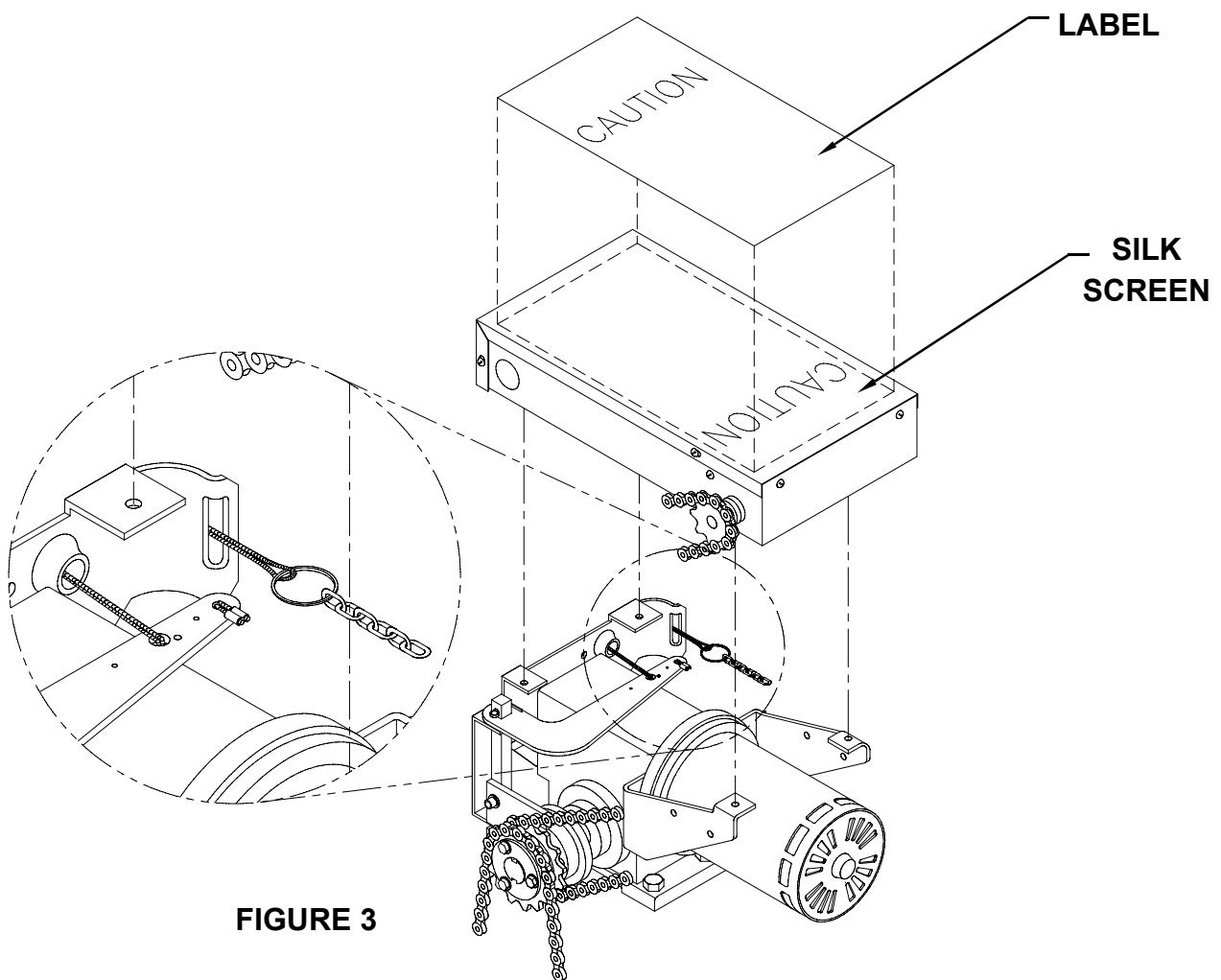


Disconnect Cable as shipped from the factory



**FIGURE 2**

Disconnect Cable Re-routed for Left Hand Mounting



**FIGURE 3**

## OPERATOR MOUNTING

Before your operator is installed, be sure the door has been properly aligned and is working smoothly. The operator may be wall mounted or mounted on a bracket or shelf. If necessary, refer to the operator preparations on page 3. Refer to the illustration and instructions below that suits your application.

### 1a. Wall Mounting

The operator should generally be installed below the door shaft, and as close to the door as possible. The optimum distance between the door shaft and operator drive shaft is between 12" - 15". Refer to Figure 3.

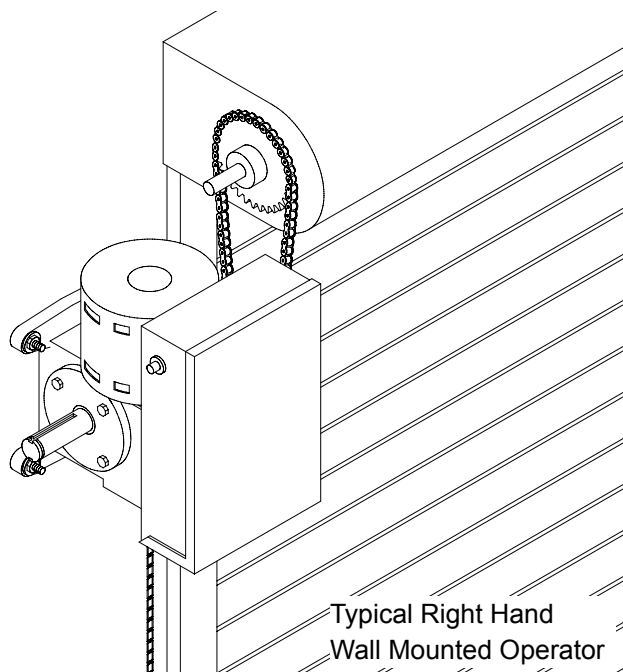
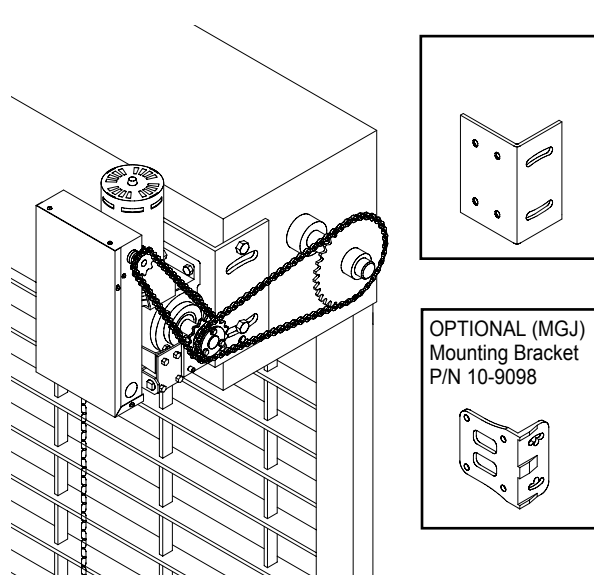


FIGURE 3

### 1b. Bracket or Shelf Mounting

The operator may be mounted either above or below the door shaft. The optimum distance between the door shaft and operator drive shaft is between 12" - 15". Refer to Figure 4.



**IMPORTANT:** The shelf or bracket must provide adequate support, prevent play between operator and door shaft, and permit operator to be fastened securely and with the drive shaft parallel to the door shaft.

FIGURE 4

- 1c. Place door sprocket on the door shaft. Do not insert the key at this time.
2. Wrap drive chain around door sprocket and join roller chain ends together with master link.
3. Raise operator to approximate mounting position and position chain over operator sprocket.
4. Raise or lower operator until the chain is slightly taut (not tight). Make sure the operator output shaft is parallel to door shaft and sprockets are aligned. When in position, secure the operator to wall or mounting bracket.
5. Align sprockets and secure, (see Figure 5).

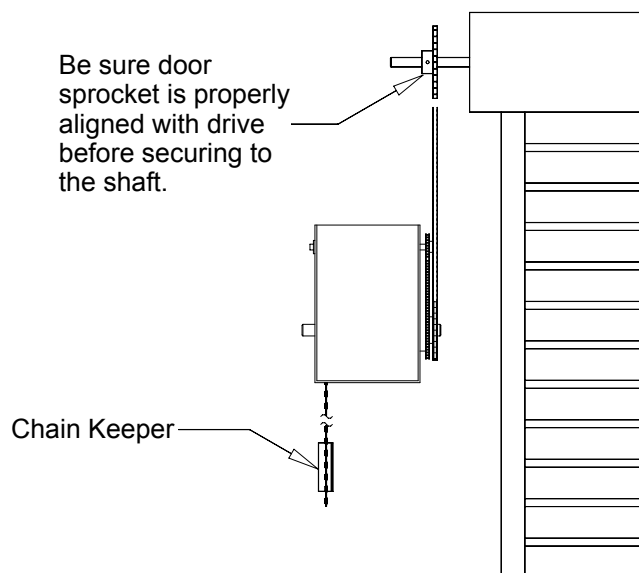
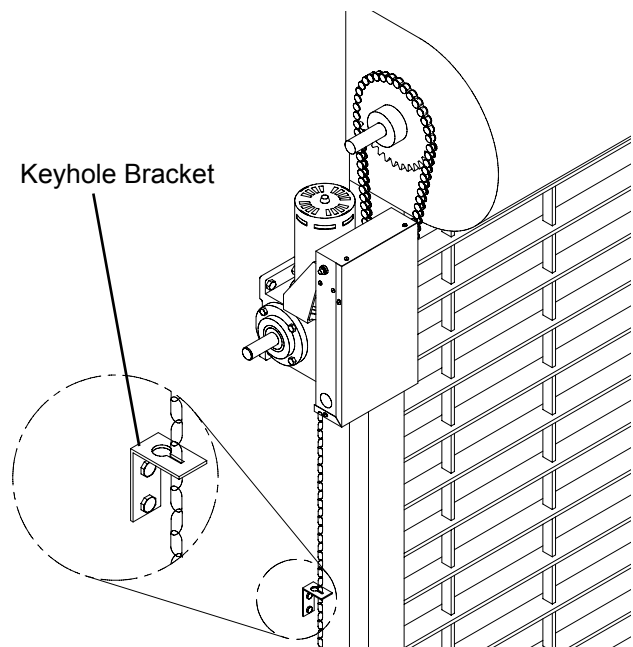


FIGURE 5

6. **Mount Chain Keeper / Keyhole Bracket**

Using suitable hardware mount the chain keeper approximately 4 feet above the floor, near the free hanging chain. Remove disconnect sash chain from bag and place the end through the keyhole in the chain keeper. Remove excess links if necessary.



## EMERGENCY MANUAL OPERATION



### CAUTION

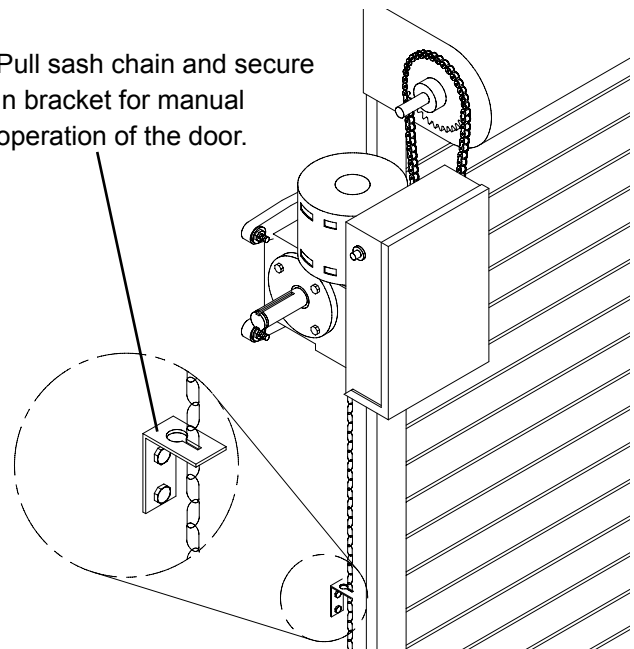
**TURN OFF POWER TO THE OPERATOR BEFORE MANUALLY OPERATING YOUR DOOR.**

This operator has a floor level disconnect chain to disconnect the door from the door operator allowing for manual operation of the door in case of emergency or power failure.

1. To disengage, pull the chain and secure in the disengaged position by slipping the end through the keyhole bracket mounted on the wall. Or if emergency egress device is used, pull handle to disengage operator from door.

2. The door may now be pushed up or pulled down manually. Release the disconnect chain to operate the door again electrically.

Pull sash chain and secure in bracket for manual operation of the door.



## ENTRAPMENT PROTECTION ACCESSORIES (OPTIONAL)

### SENSING EDGES

All types of sensing edges with an isolated normally open (N.O.) output are compatible with your operator. This includes pneumatic and electric edges. If your door does not have a bottom sensing edge and you wish to purchase one, contact the supplier of your operator.

If not pre-installed by the door manufacturer, mount the sensing edge on the door according to the instructions provided with the edge. The sensing edge may be electrically connected by either coiled cord or take-up reel. Refer to the steps below

#### Important Notes:

- Proceed with Limit Switch Adjustments before making any sensing edge wiring connections to operator as described below.
- Electrician must hardwire the junction box to the operator electrical box in accordance with local codes.

**IT IS STRONGLY RECOMMENDED THAT A SENSING EDGE OR OTHER ENTRAPMENT PROTECTION DEVICE BE USED IN CONJUNCTION WITH THIS OPERATOR.**

**TAKE-UP REEL:** Take-up reel should be installed 12" above the top of the door.

**COIL CORD:** Connect operator end of coil cord to junction box (not supplied) fastened to the wall approximately halfway up the door opening.

## MGJ LIMIT SWITCH ADJUSTMENT

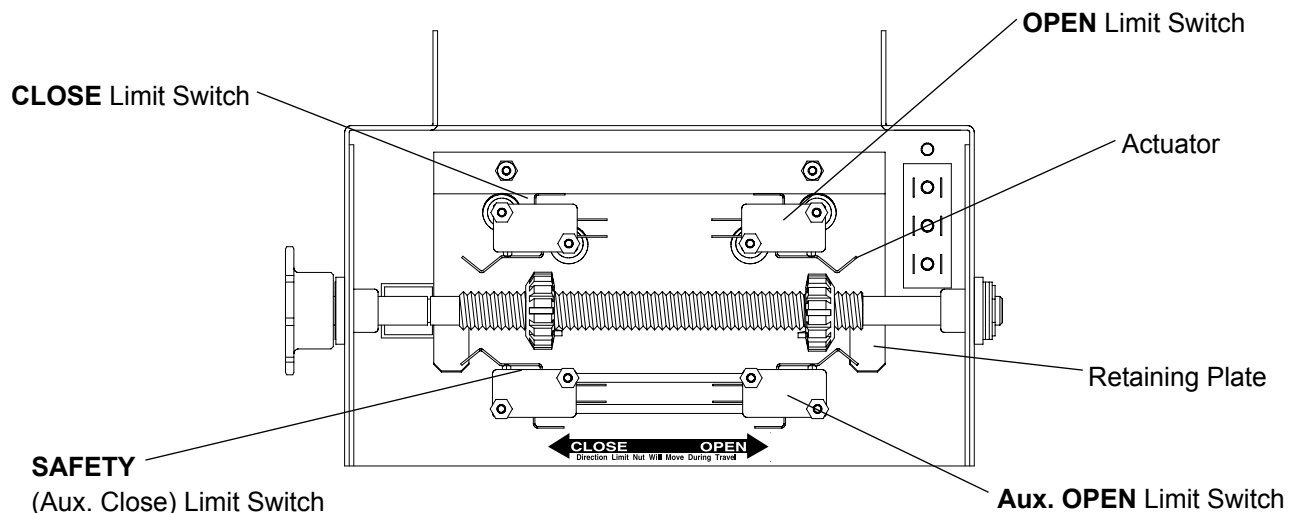
**MAKE SURE THE LIMIT NUTS ARE POSITIONED BETWEEN THE LIMIT SWITCH ACTUATORS BEFORE PROCEEDING WITH ADJUSTMENTS.**

- To adjust limit nuts depress retaining plate to allow nut to spin freely. After adjustment, release plate and ensure it seats fully in slots of both nuts.
- To **increase** door travel, spin nut **away** from actuator. To **decrease** door travel, spin limit nut **toward** actuator.
- Adjust open limit nut so that door will stop in open position with the bottom of the door even with top of door opening.
- Repeat Steps 1 and 2 for close cycle. Adjust close limit nut so that actuator is engaged as door fully seats at the floor.



### WARNING

**TO AVOID SERIOUS PERSONAL INJURY OR DEATH FROM ELECTROCUTION, DISCONNECT ELECTRIC POWER BEFORE MANUALLY MOVING LIMIT NUTS.**



## LGJ LIMIT SWITCH ADJUSTMENT

**IMPORTANT NOTE:** To avoid danger of possible damage to the door and operator, limit switches must be adjusted to their approximate positions before applying power to the operator.



### WARNING

**NEVER PLACE HANDS OR TOOLS INSIDE OPERATOR OR NEAR MECHANISM UNLESS POWER IS OFF!!**

#### A. Set Limit Direction Switch

Open the cover on the electrical enclosure and locate dip switch SW1 on circuit board. The direction of the limit travel is determined by the switch SW1 - pole #2 setting.

#### If your operator is mounted Motor Side Up:

Set dip switch SW1 - pole #2 to "ON" position.

#### If your operator is mounted Motor Side Down:

Set dip switch SW1 - pole #2 to "OFF" position.

**NOTE:** See Mounting Options on page 5 to verify the correct mounting application.

As determined by SW1 - pole 2 setting above, locate your OPEN and CLOSE limit switches. See the figure below for switch layout.

**For Motor Side Up Mounting:** Limit switch -A- is the OPEN limit. Limit switch -B- is the CLOSE limit.

**For Motor Side Down Mounting:** Limit switch -A- is the CLOSE limit. Limit switch -B- is the OPEN limit.

Auxiliary limit switches to control other functions are also present and should not be confused with the -A- and -B- limit switches. There are two(2) limit nuts on the threaded shaft that transverse the shaft as the operator opens and closes the door. When a limit nut nears the end of the shaft, it activates a switch(es).

B. Manually raise the door to a nearly open position. (see page 17, Manual Operation)

C. Depress the limit nut retaining bracket away from the slots in the limit nuts, and manually rotate to the OPEN limit nut until it depresses the OPEN limit switch lever (you can hear the switch click when the switch contacts transfer). Release the retaining bracket and be sure it engages in the slots of both limit nuts.

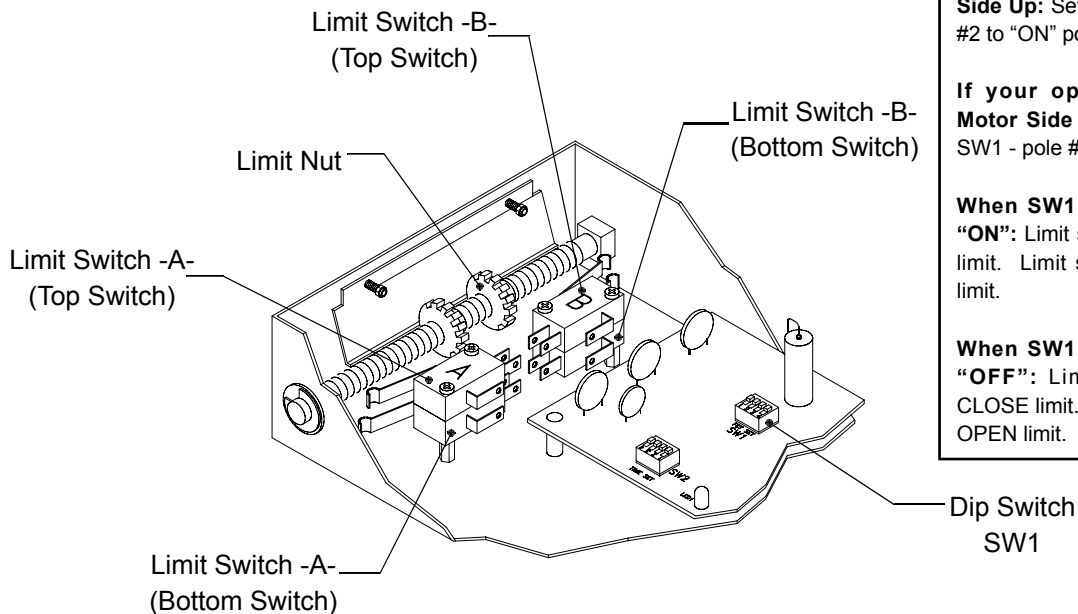
D. Manually lower the door to a nearly closed position, and repeat step C with the CLOSE (right) limit nut.

#### E. Test Limit Travel

Manually move the door to a half-open position to avoid damage due to incorrect (dip switch setting) limit travel. When power is applied, it will cause the door to OPEN when the limit nuts are traveling in the direction of the CLOSE limit switch or vice versa. In either instance, the limit nuts will travel past the limit switch and may cause damage to both the door and operator. See Step A for correct setting.

F. After completing the wiring connections on pages 11 thru 13, refer back to step C above for adjustment of limit switches to their final, exact position.

### Limit Switch Layout



**If you operator is mounted Motor Side Up:** Set dip switch SW1 - pole #2 to "ON" position

**If your operator is mounted Motor Side Down:** Set dip switch SW1 - pole #2 to "OFF" position.

**When SW1 - pole 2 position is "ON":** Limit switch -A- is the OPEN limit. Limit switch -B- is the close limit.

**When SW1 - pole 2 position is "OFF":** Limit switch -A- is the CLOSE limit. Limit Switch -B- is the OPEN limit.

## MAINTENANCE SCHEDULE

Check at the intervals listed in the following chart.

| ITEM              | PROCEDURE                                                                | EVERY<br>3 MONTHS | EVERY<br>6 MONTHS | EVERY<br>12 MONTHS                                                                  |
|-------------------|--------------------------------------------------------------------------|-------------------|-------------------|-------------------------------------------------------------------------------------|
| Drive Chain       | Check for excessive slack.<br>Check & adjust as required.<br>Lubricate.* | ●                 |                   |  |
| Sprockets         | Check set screw tightness                                                | ●                 |                   |  |
| Fasteners         | Check & tighten as required                                              |                   | ●                 |  |
| Manual Disconnect | Check & Operate                                                          |                   | ●                 |  |
| Bearings & Shafts | Check for wear & lubricate                                               | ●                 |                   |  |

◆ Use SAE 30 Oil (Never use grease or silicone spray).

 Repeat ALL procedures.

■ Do not lubricate motor. Motor bearings are rated for continuous operation.

■ Inspect and service whenever a malfunction is observed or suspected.

■ CAUTION: BEFORE SERVICING, ALWAYS DISCONNECT OPERATOR FROM POWER SUPPLY.

### **HOW TO ORDER REPAIR PARTS**

## **DEVANCO CANADA**

19192 HAY ROAD, UNIT Q  
SUMMERSTOWN, ON K0C 2E0

TOLL FREE: 855-931-3334  
[www.devancocanada.com](http://www.devancocanada.com)

**WHEN ORDERING REPAIR PARTS  
PLEASE SUPPLY THE FOLLOWING INFORMATION:**

- ✓ PART NUMBER
- ✓ DESCRIPTION
- ✓ MODEL NUMBER

## CONTROL WIRING

### DETERMINE WIRING TYPE

Refer to the wiring diagram located on the inside cover the electrical box to determine the type of control wiring.

#### MODEL MGJ

##### Standard C2 or B2 Wiring

Model MGJ operators are shipped from the factory with jumper set for C2 wiring, which requires constant pressure on button to close the door. If momentary contact in close direction is desired (B2 wiring) you must include an entrapment protection device. See close control jumper setting below.

##### Constant pressure on close (C2 wiring)

Red jumper wire was placed on terminal #2 in the electrical enclosure. The operator will require constant pressure on close control in order to keep door moving in the close direction.

##### Momentary contact on close (B2 wiring)

Move red jumper wire from terminal #2 to terminal #3. The operator will require only momentary contact to close the door.

#### SPECIAL CONTROL WIRING

If your operator was shipped from the factory with non-standard control wiring or with optional accessories that require additional instructions, refer to the wiring diagram(s) indicated in the special control wiring data box. When a replacement wiring diagram is present, wiring diagrams in this manual will not apply. Refer only to the replacement wiring diagram for all connections.

#### MODEL LGJ

##### Standard G2 Wiring

Model LGJ operators are supplied with type G2 control wiring. Study the control features list below to determine the features and type of control equipment that may be used with your operator.

##### Entry Controls:

OPEN control requiring maintained contact.  
OPEN control requiring only momentary contact.  
CLOSE control requiring maintained contact.  
CLOSE control requiring only momentary contact.  
OPEN/CLOSE single control requiring momentary contact..  
STOP control requiring momentary contact.

##### Safety Devices:

External Interlock switch to disable all control pneumatic safety (N.C.) to STOP while closing Safety Device to REVERSE while closing Door Lock Sensing Circuit.

##### Operational Features:

REVERSE (if closing) with momentary contact on OPEN.  
AUTOMATIC TIMER to CLOSE from any device.  
AUTOMATIC TIMER to CLOSE from selected devices.  
DELAY REVERSE in either direction for 1 second.  
STOP after maximum run time is exceeded.

##### Note:

Refer to LGJ control connection diagrams on page 15.

### LOCATING THE CONTROL STATION

All operators are supplied with some type of control station. Generally a three button station (OPEN/CLOSE/STOP) is provided. A two-position key switch or control station (OPEN/CLOSE) may be added or substituted when requested at the time of order. Mount the control station near the door.

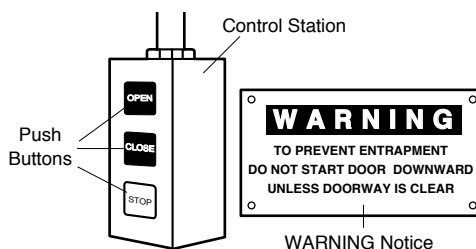


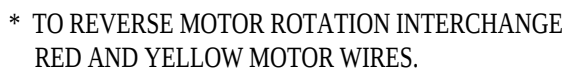
## WARNING

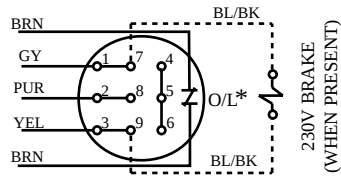
INSTALL THE CONTROL STATION WHERE THE DOOR IS VISIBLE, BUT AWAY FROM THE DOOR AND ITS HARDWARE. IF CONTROL STATION CANNOT BE INSTALLED WHERE DOOR IS VISIBLE, OR IF ANY DEVICE OTHER THAN THE CONTROL STATION IS USED TO ACTIVATE THE DOOR, A **REVERSING EDGE MUST BE INSTALLED ON THE BOTTOM OF THE DOOR**. FAILURE TO INSTALL A REVERSING EDGE UNDER THESE CIRCUMSTANCES MAY RESULT IN SERIOUS INJURY OR DEATH TO PERSONS TRAPPED BENEATH THE DOOR.

## MOUNT WARNING NOTICE

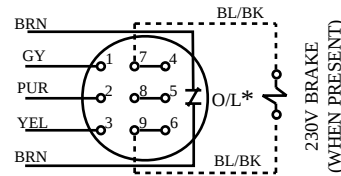
**IMPORTANT:** Mount WARNING NOTICE beside or below the push button station.



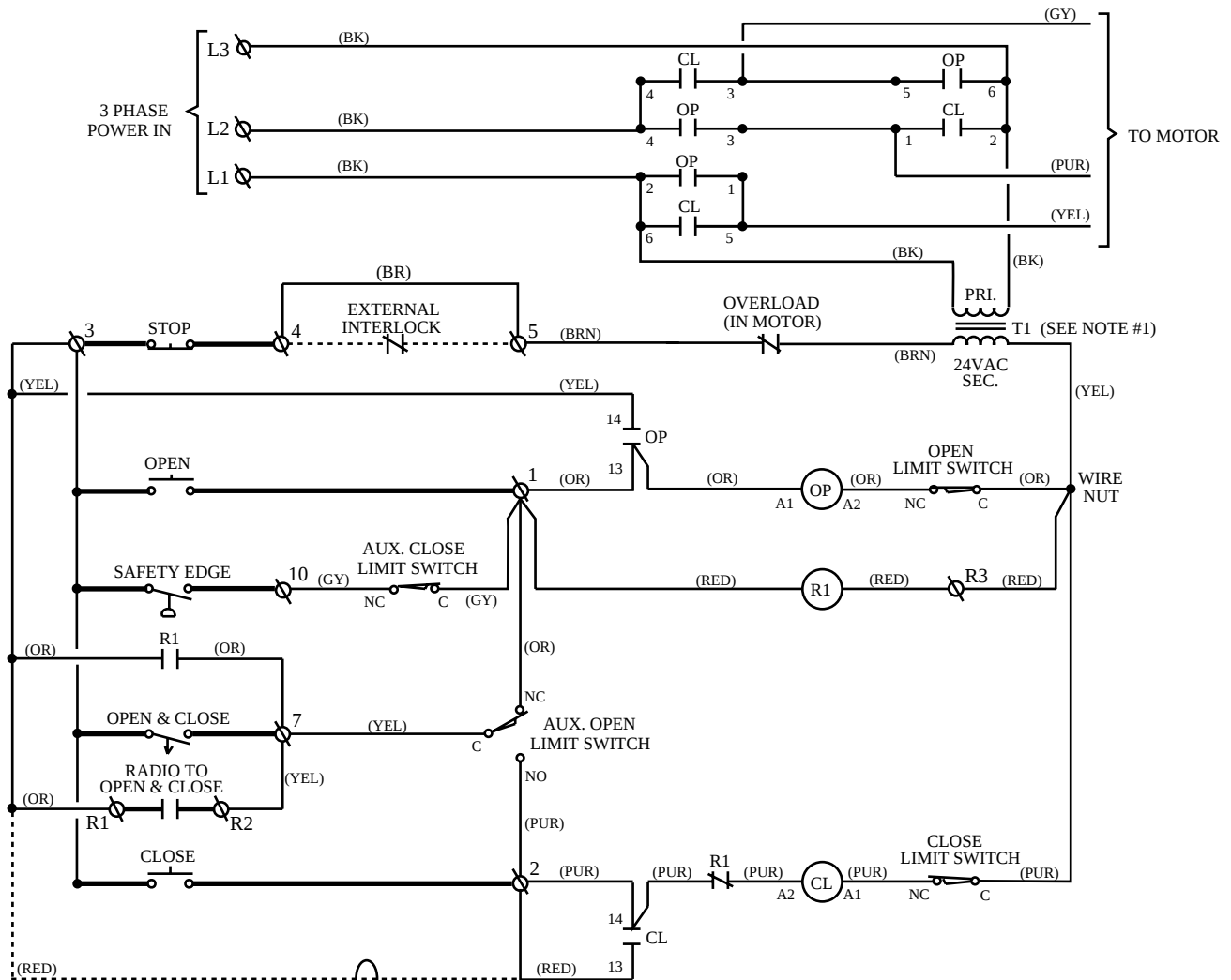




230 VOLT - 3 PHASE  
MOTOR CONNECTION



460 VOLT - 3 PHASE  
MOTOR CONNECTION

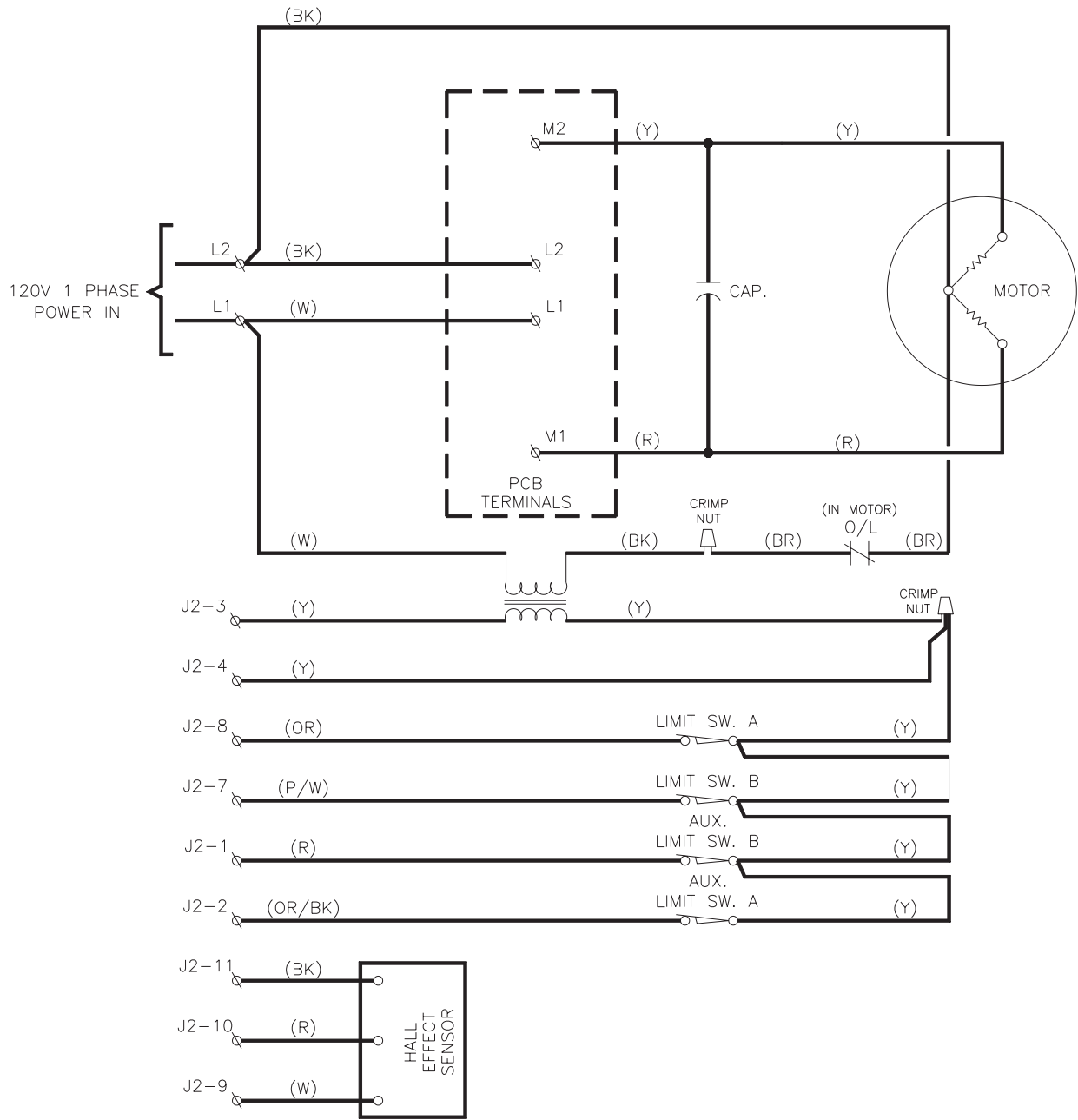


NOTE:  
1. Voltage same as line voltage.

## CLOSE CONTROL WIRING OPTIONS

\* - Shipped from Factory  
\*C2 WIRING - Constant Pressure to Close  
RED WIRE ON TERMINAL #2 (Shipped from Factory)  
B2 WIRING - Momentary Contact to Close  
MOVE RED WIRE FROM TERMINAL #2 TO TERMINAL #3

**SINGLE PHASE SCHEMATIC DIAGRAM for LGJ 1666**



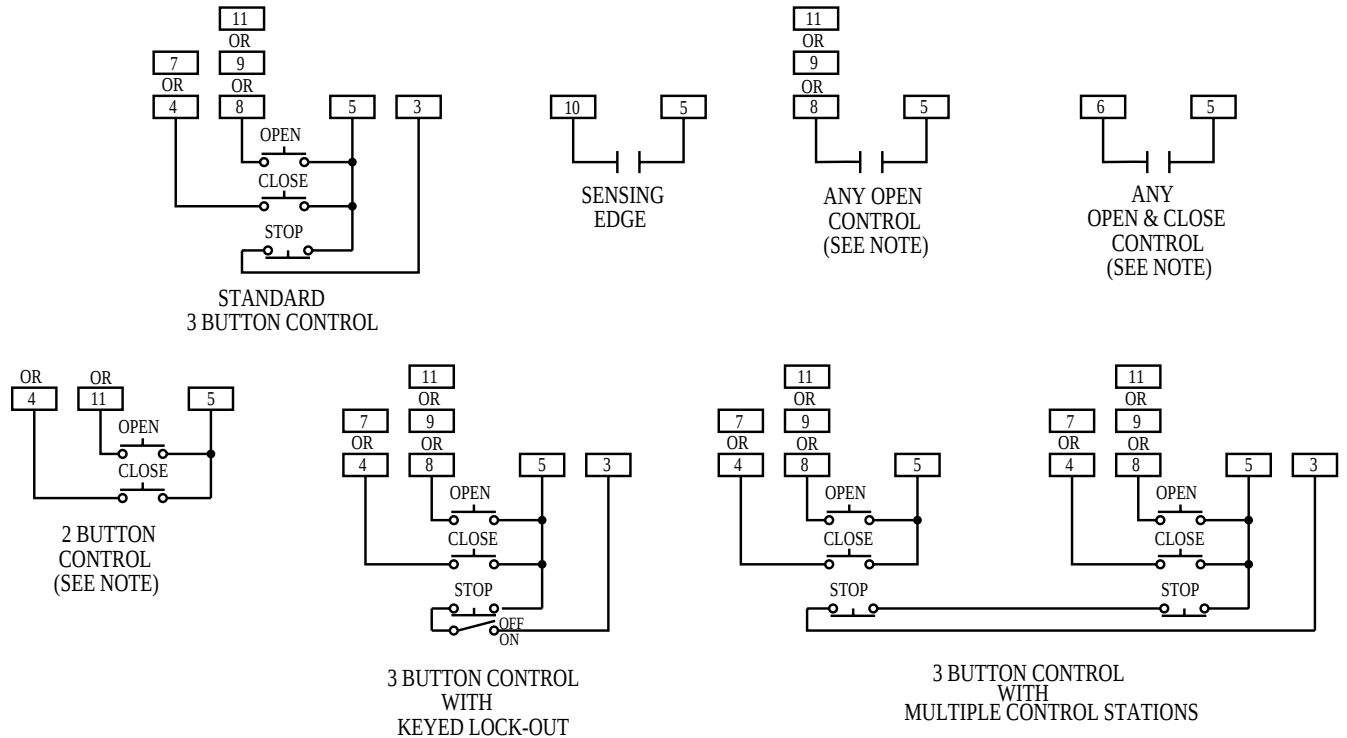
# LGJ CONTROL CONNECTION DIAGRAM



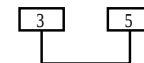
NUMBERED BOXES CORRESPOND WITH TERMINALS ON J1 CONNECTOR STRIP

If Necessary, Remove The Connector Block From The Board To Secure Each Wire Connection

Connect field wires to any terminal number shown in the respective column. See control options below for explanation of how field control will function for each terminal number.



**IMPORTANT NOTE:** WHEN STOP BUTTON IS NOT USED, ADD A JUMPER FROM TERMINAL 3 TO TERMINAL 5.



| OPEN AND CLOSE CONTROL OPTIONS       |                                                                                                                        |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| WHEN CONNECTING AN OPEN CONTROL TO:  | <b>11</b> - Open control will require constant pressure to keep door moving.                                           |
|                                      | <b>9</b> - Open control will only require momentary contact and will set or reset timer to close.                      |
|                                      | <b>8</b> - Open control will only require momentary contact and will NOT set or reset timer to close.                  |
| WHEN CONNECTING AN CLOSE CONTROL TO: | <b>4</b> - Close control will require constant pressure to keep door moving.                                           |
|                                      | <b>7</b> - Close control will only require momentary contact. DO NOT add unless using an entrapment Protection device. |

| SWITCH ADJUSTMENTS                                                                                       |            |         |           |
|----------------------------------------------------------------------------------------------------------|------------|---------|-----------|
| SWITCH #1 SETTINGS                                                                                       |            |         |           |
| MAXIMUM RUN TIME: 1 - ON: Maximum run time is 90 seconds.<br>OFF: Maximum run time is 45 seconds.        |            |         |           |
| MAXIMUM RUN TIME: 2 - ON: CLOSE limit switch B<br>OFF: CLOSE limit switch A                              |            |         |           |
| MAXIMUM RUN TIME: 3 - OFF: (DO NOT ADJUST)<br>4 - OFF: (DO NOT ADJUST)<br>CONSULT FACTORY FOR ADJUSTMENT |            |         |           |
| SWITCH #2 SETTINGS                                                                                       |            |         |           |
| TIMER TO CLOSE SWITCH SETTING:<br>O = ON F = OFF                                                         |            |         |           |
| SETTING                                                                                                  | TIME       | SETTING | TIME      |
| 1 2 3 4                                                                                                  |            | 1 2 3 4 |           |
| O O O O                                                                                                  | = Disabled | O O O F | = 72 sec  |
| F O O O                                                                                                  | = 2 sec    | F O O F | = 88 sec  |
| O F O O                                                                                                  | = 3 sec    | O F O F | = 107 sec |
| F F O O                                                                                                  | = 13 sec   | F F O F | = 126sec  |
| O O F O                                                                                                  | = 15 sec   | O O F F | = 148 sec |
| F O F O                                                                                                  | = 23 sec   | F O F F | = 172 sec |
| O F F O                                                                                                  | = 32.5 sec | O F F F | = 198 sec |
| F F F O                                                                                                  | = 43.6 sec | F F F F | = 224 sec |

## REPLACEMENT PART KITS LGJ

Below are replacement kits available for your operator. Optional modifications and/or accessories included with your operator may add or remove certain components from these lists. Please consult a parts and service representative regarding availability of individual components of kits specified below. Refer to page 10 for all repair part ordering information.

### Complete Electrical Box Replacement Kit

K-LGJ2511 Model LGJ2511

### Electrical Box Sub-Assembly Kits

K72-12581 LGJ Limit Shaft Assembly  
K75-12582 LGJ Limit Switch Assembly  
K79-11384 LGJ PC Board Assembly

| K72-12581 LIMIT SHAFT ASSEMBLY KIT |             |                                 |     |
|------------------------------------|-------------|---------------------------------|-----|
| Item                               | P/N         | Description                     | Qty |
| L1                                 | 11-11425    | Limit Shaft                     | 1   |
| L2                                 | 12-10458    | 3/8" Bearing, Plastic Flange    | 2   |
| L3                                 | 13-10024    | Limit Nut                       | 2   |
| L4                                 | 15-48B07AXX | Sprocket, 48B07                 | 1   |
| L5                                 | 81-11443    | Rotor for RSL Assembly          | 1   |
| L6                                 | 80-10053    | Washer, Shim                    | 1   |
| L7                                 | 80-10025    | Washer, Shim                    | 1   |
| L8                                 | 80-10026    | Washer, Shim                    | 1   |
| L9                                 | 86-RP04-012 | Roll Pin, 1/8" Dia. x 3/4" Long | 1   |
| L10                                | 87-E-038    | E Ring, 3/8"                    | 3   |

| K75-12582 LIMIT SWITCH ASSEMBLY KIT |            |                                     |     |
|-------------------------------------|------------|-------------------------------------|-----|
| Item                                | P/N        | Description                         | Qty |
| S1                                  | 10-11391   | Depress Plate                       | 1   |
| S2                                  | 18-10036   | Spring, Depress Plate               | 2   |
| S3                                  | 23-10041   | Limit Switch                        | 2   |
| S4                                  | 23-11442   | Limit Switch                        | 2   |
| S5                                  | 80-11445   | Standoff, #4-40 Threaded x .19 Long | 4   |
| S6                                  | 82-PX04-16 | Screw, #4-40 x 1" Pan Head Ph       | 4   |
| S7                                  | 82-PX06-16 | Screw, #6-32 x 1" Pan Head Ph       | 2   |
| S8                                  | 84-LH-06   | Locknut #6-32                       | 2   |

### Motor Kit

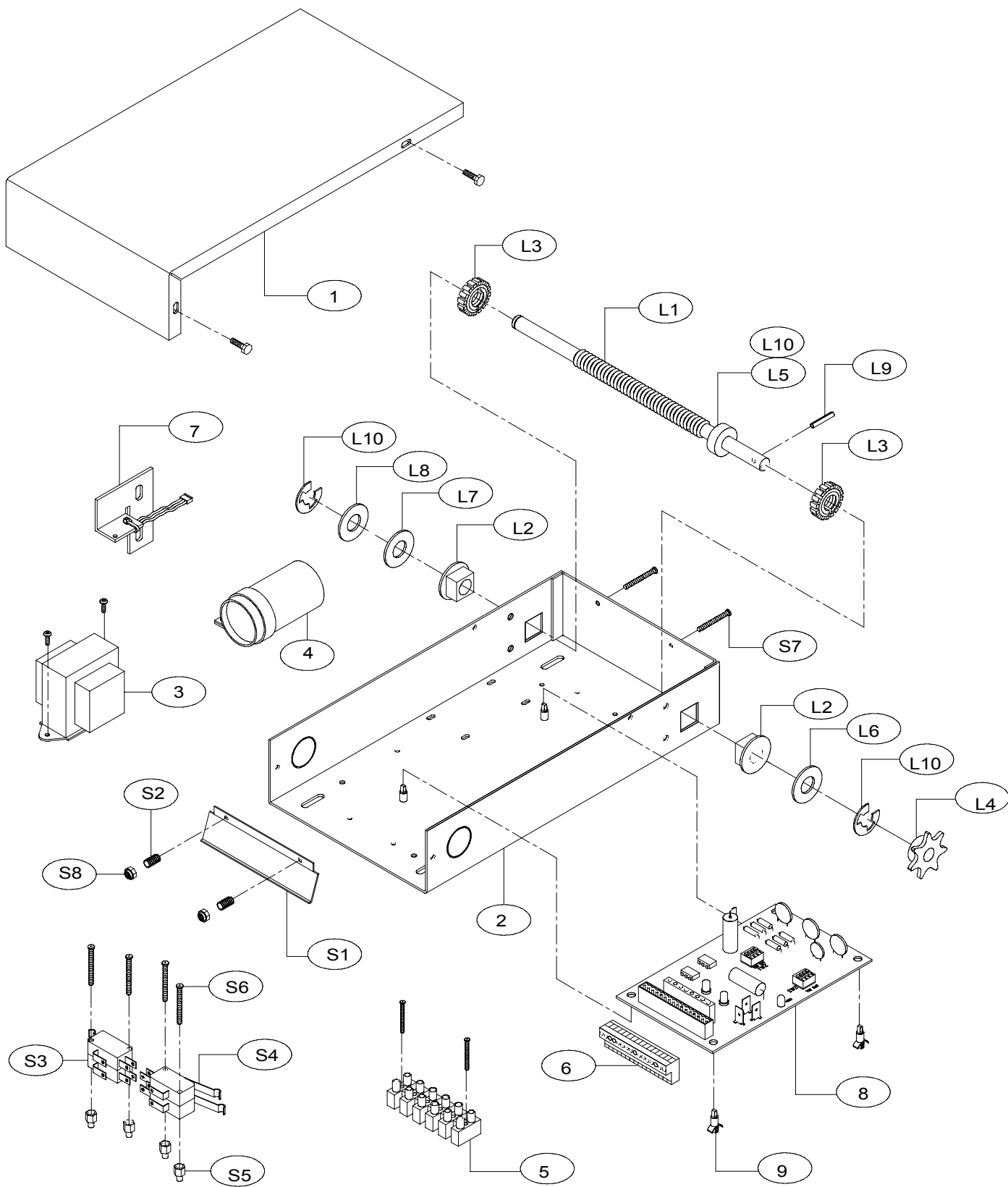
K20-1025C1 Model LGJ2511

### Disconnect Assembly Kit

K75-12583 Model LGJ2511

| COMPLETE ELECTRICAL BOX KITS |             |                                     |     |
|------------------------------|-------------|-------------------------------------|-----|
| Item                         | P/N         | Description                         | QTY |
| 1                            | 10-11390M1  | Electrical Box Cover                | 1   |
| 2                            | 10-11392M1  | Electrical Box                      | 1   |
| 3                            | 21-13395    | Transformer, LGJ 115V-24VAC         | 1   |
| 4                            | 29-7642     | Capacitor 220V 42MFD                | 1   |
| 5                            | 42-9306     | Terminal Block 6 Pole               | 1   |
| 6                            | 42-13378    | J2 Terminal Block, 16 Pole (1-16)   | 1   |
| 7                            | 75-11395    | Hall Effect Assembly                | 1   |
| 8                            | 79-11378    | PCB Board Assembly                  | 1   |
| 9                            | 80-10027    | PCB Board Standoff                  | 4   |
| L1                           | 11-11425    | Limit Shaft                         | 1   |
| L2                           | 12-10458    | 3/8" Bearing, Plastic Flange        | 2   |
| L3                           | 13-10024    | Limit Nut                           | 2   |
| L4                           | 15-48B07AXX | Sprocket, 48B07                     | 1   |
| L5                           | 81-11443    | Rotor for RSL Assembly              | 1   |
| L6                           | 85-FW-38    | Flat Washer, 3/8"                   | 4   |
| L7                           | 86-RP04-012 | Roll Pin, 1/8" Dia. x 3/4" Long     | 1   |
| L8                           | 87-E-038    | E Ring, 3/8"                        | 1   |
| S1                           | 10-11391    | Depress Plate                       | 1   |
| S2                           | 18-10036    | Spring, Depress Plate               | 2   |
| S3                           | 23-10041    | Limit Switch                        | 2   |
| S4                           | 23-11442    | Limit Switch                        | 2   |
| S5                           | 80-11446    | Standoff, #4-40 Threaded x .19 Long | 4   |
| S6                           | 82-PX04-16  | Screw, #4-40 x 1" Pan Head Ph       | 4   |
| S7                           | 82-PX06-16  | Screw, #6-32 x 1" Pan Head Ph       | 2   |
| S8                           | 84-LH-06    | Locknut #6-32                       | 2   |

# LGJ ELECTRICAL BOX - ILLUSTRATED PARTS



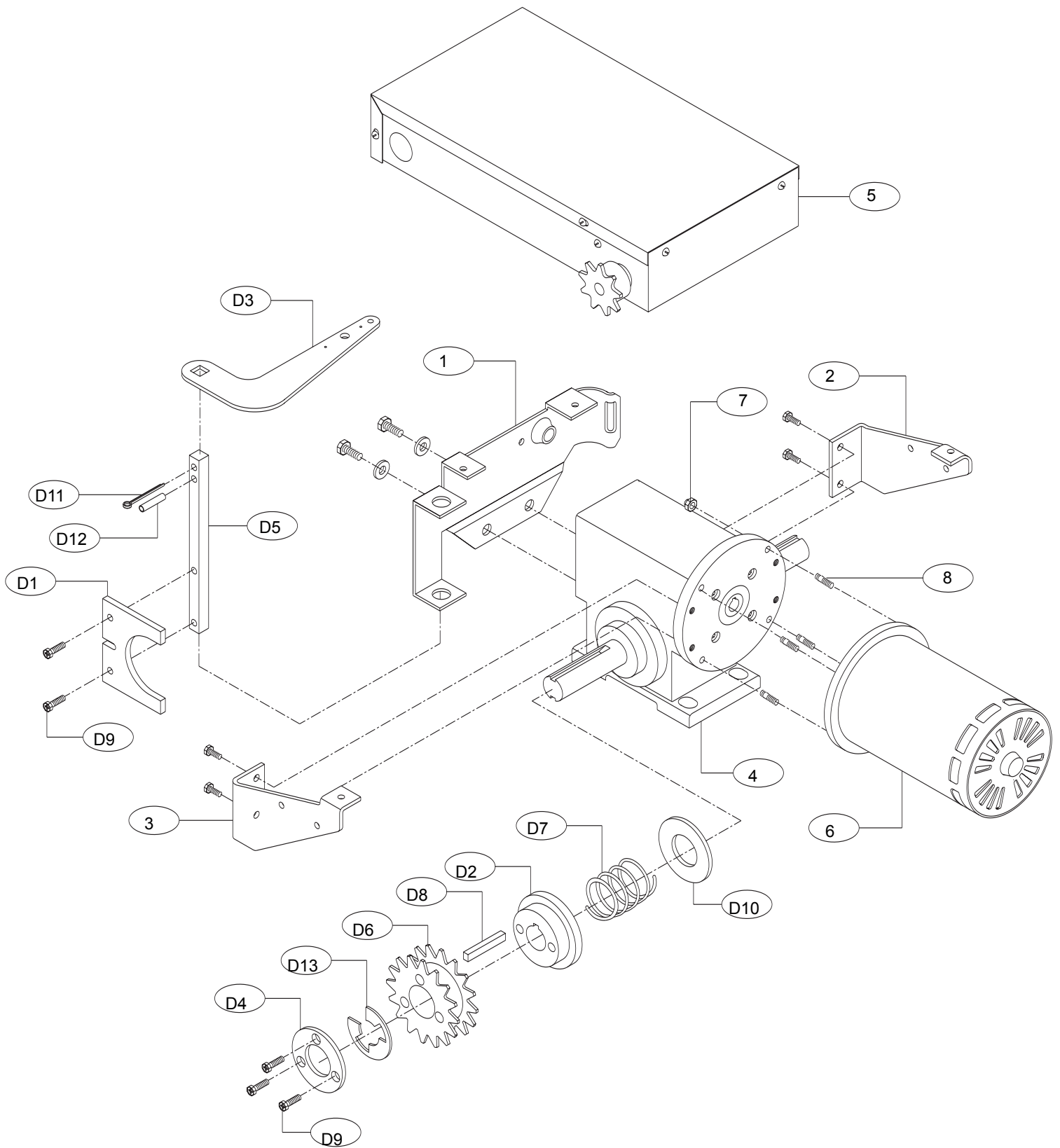
## REPLACEMENT PART LISTS – MODEL LGJ

Refer to the parts lists below for replacement kits available for your operator. If optional modifications and/or accessories are included with your operator, certain components may be added or removed from these lists. Individual components of each kit may not be available. Please consult a parts and service representative regarding availability of individual components. Refer to page 10 for all repair part ordering information.

| K75-12583 DISCONNECT ASSEMBLY KIT |             |                               |     |
|-----------------------------------|-------------|-------------------------------|-----|
| ITEM                              | PART #      | DESCRIPTION                   | QTY |
| D1                                | 10-11023    | Bevel Gear Yoke               | 1   |
| D2                                | 10-11393    | Disconnect                    | 1   |
| D3                                | 10-11394    | Release Lever                 | 1   |
| D4                                | 10-11399    | Retaining Plate               | 1   |
| D5                                | 11-11424    | Disconnect Shaft              | 1   |
| D6                                | 15-11379    | Sprocket, 48B14/41B14         | 1   |
| D7                                | 18-11427    | Compression Spring            | 1   |
| D8                                | 80-207-19   | Key, 1/4 x 1-1/2" Long        | 1   |
| D9                                | 82-HX10-08T | Screw, #10-32 x 1/2" Hex      | 5   |
| D10                               | 85-FW-75    | Flatwasher, 3/4"              | 1   |
| D11                               | 86-CP04-112 | Cotter Pin 1/8" x 1-3/4" Long | 1   |
| D12                               | 86-RP04-100 | Roll Pin, 1/8" Dia. x 1" Long | 1   |
| D13                               | 87-E-075    | E Ring 3/4"                   | 1   |

| INDIVIDUAL PARTS |             |                       |     |
|------------------|-------------|-----------------------|-----|
| ITEM             | PART #      | DESCRIPTION           | QTY |
| 1                | 10-11397    | Support Bracket       | 1   |
| 2                | 10-11389-1  | Mounting Bracket (LH) | 1   |
| 3                | 10-11398-2  | Mounting Bracket (RH) | 1   |
| 4                | 32-11435    | Gear Reducer, 40:1    | 1   |
| 5                | See Page 16 | Electrical Box        | 1   |
| 6                | See Page 16 | Motor                 | 1   |
| 7                | 84-FN-10    | Nut                   | 1   |
| 8                | 84-FN-19144 | Stud                  | 1   |

# LGJ ILLUSTRATED PARTS



## REPLACEMENT PART KITS MGJ

Below are replacement kits available for your operator. For replacement of electrical box, motor or brake components be sure to match model number of your unit to kit number below to ensure proper voltage requirements. Optional modifications and/or accessories included with your operator may add or remove certain components from these lists. Please consult a parts and service representative regarding availability of individual components of kits specified below. Refer to page 10 for all repair part ordering information.

### Complete Electrical Box Replacement Kits

|            |                |
|------------|----------------|
| K-MGJ5011L | Model MGJ5011L |
| K-MGJ5023L | Model MGJ5023L |
| K-MGJ5025L | Model MGJ5025L |
| K-MGJ5038L | Model MGJ5038L |
| K-MGJ5043L | Model MGJ5043L |

|            |                |
|------------|----------------|
| K-MGJ5011R | Model MGJ5011R |
| K-MGJ5023R | Model MGJ5023R |
| K-MGJ5025R | Model MGJ5025R |
| K-MGJ5038R | Model MGJ5038R |
| K-MGJ5043R | Model MGJ5043R |

### Electrical Box Sub-Assemblies

|           |                           |
|-----------|---------------------------|
| K72-12565 | MGJ Limit Shaft Assembly  |
| K75-12566 | MGJ Limit Switch Assembly |

### Motor Kits

|             |                                  |
|-------------|----------------------------------|
| K20-1050C1M | Model MGJ5011                    |
| K20-3050C4M | Models MGJ5023, MGJ5038, MGJ5043 |
| K20-5150C6M | Model MGJ5025                    |

### Disconnect Assembly Kit

|           |                     |
|-----------|---------------------|
| K75-12567 | Model MGJ Operators |
|-----------|---------------------|

| K72-12565 LIMIT SHAFT ASSEMBLY KIT |             |                                 |     |
|------------------------------------|-------------|---------------------------------|-----|
| Item                               | P/N         | Description                     | Qty |
| L1                                 | 11-11373    | MGJ Limit Shaft                 | 1   |
| L2                                 | 12-10458    | 3/8" Bearing, Plastic Flange    | 2   |
| L3                                 | 13-10024    | Limit Nut                       | 2   |
| L4                                 | 15-48B07AXX | Sprocket, 48B07                 | 1   |
| L5                                 | 80-10026    | Washer, Shim 3/8" I.D. x .01    | 1   |
| L6                                 | 85-FW-38    | Flatwasher, 3/8"                | 2   |
| L7                                 | 86-RP04-012 | Roll Pin, 1/8" Dia. x 3/4" Long | 1   |
| L8                                 | 87-E-038    | E Ring, 3/8"                    | 1   |

| COMPLETE ELECTRICAL BOX KITS |                  |                                 |     |
|------------------------------|------------------|---------------------------------|-----|
| Item                         | P/N              | Description                     | Qty |
| 1                            | 03-11112         | Reversing Contactor (See Notes) | 1   |
| 2                            | 10-11403         | Electrical Box Cover            | 1   |
| 3                            | 10-11420         | Electrical Box                  | 1   |
| 4                            | 10-11421         | Capacitor Clamp (See Notes)     | 1   |
| 5                            | (See Var. Comp.) | Transformer                     | 1   |
| 6                            | 24-24-1          | 24V DPDT Relay                  | 2   |
| 7                            | 29-10338         | Capacitor, 7MFD (See Notes)     | 1   |
| 8                            | 29-2             | Resistor, 20 Ohm                | 1   |
| 9                            | 42-10040         | Terminal Block Assy, 3 Lug      | 1   |
| 10                           | 42-110           | 10 Position Terminal Block      | 1   |
| L1                           | 11-11373         | MGJ Limit Shaft                 | 1   |
| L2                           | 12-10458         | 3/8" Bearing, Plastic Flange    | 2   |
| L3                           | 13-10024         | Limit Nut                       | 2   |
| L4                           | 15-48B07AXX      | Sprocket, 48B07                 | 1   |
| L5                           | 80-10026         | Washer, Shim 3/8" I.D. x .01    | 1   |
| L6                           | 85-FW-38         | Flatwasher, 3/8"                | 2   |
| L7                           | 86-RP04-012      | Roll Pin, 1/8" Dia. x 3/4" Long | 1   |
| L8                           | 87-E-038         | E Ring, 3/8"                    | 1   |
| S1                           | 10-11419         | Depress Plate                   | 1   |
| S2                           | 18-10036         | Spring, Depress Plate           | 2   |
| S3                           | 23-10041         | SPDT Limit Switch               | 4   |
| S4                           | 31-13062         | Spacer, .115" ID x 5/8" Long    | 8   |
| S5                           | 82-PX06-16       | Screw, #6-32 x 1" Pan HD PH     | 2   |
| S6                           | 82-PX06-19       | Screw, #6-32 x 1-3/8" Pan HD PH | 8   |
| S7                           | 84-DT-06         | Nut, #6-32 Double Tinnerman     | 4   |
| S8                           | 84-LH-06         | Locknut #6-32                   | 2   |

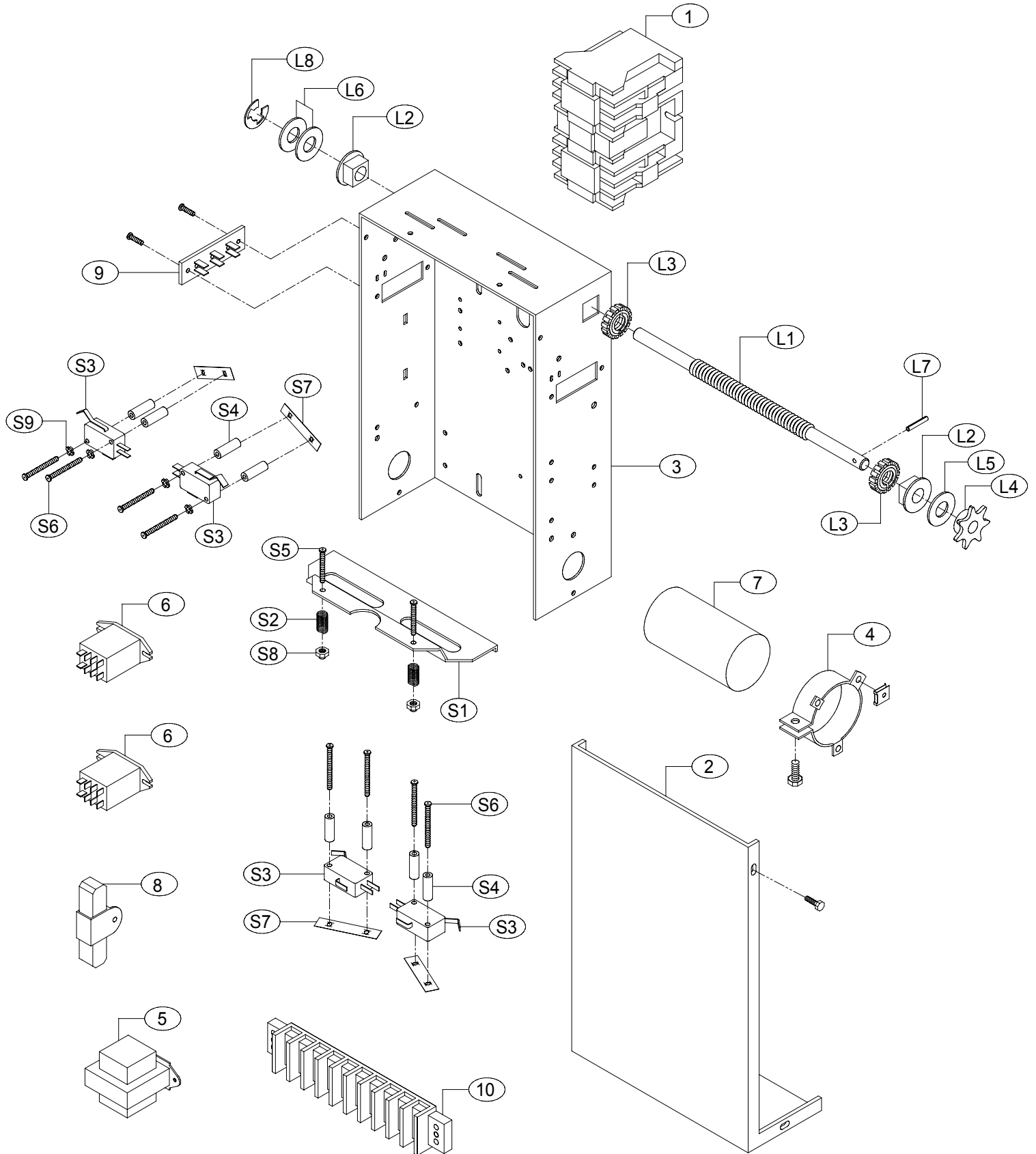
| K75-12566 LIMIT SWITCH ASSEMBLY KIT |            |                                 |     |
|-------------------------------------|------------|---------------------------------|-----|
| Item                                | P/N        | Description                     | Qty |
| S1                                  | 10-11419   | Depress Plate                   | 1   |
| S2                                  | 18-10036   | Spring, Depress Plate           | 2   |
| S3                                  | 23-10041   | SPDT Limit Switch               | 4   |
| S4                                  | 31-13062   | Spacer, .115" ID x 5/8" Long    | 8   |
| S5                                  | 82-PX06-16 | Screw, #6-32 x 1" Pan HD PH     | 2   |
| S6                                  | 82-PX04-20 | Screw, #4-40 x 1-1/2" Pan HD PH | 8   |
| S7                                  | 84-DT-06   | Nut, #6-32 Double Tinnerman     | 4   |
| S8                                  | 84-LH-06   | Locknut #6-32                   | 2   |

| VARIABLE COMPONENT KITS |         |                   |         |         |         |
|-------------------------|---------|-------------------|---------|---------|---------|
|                         |         |                   | MGJ5011 | MGJ5023 | MGJ5043 |
| Item                    | P/N     | Description       |         |         |         |
| 5                       | 21-5115 | Transformer, 115V | ●       |         |         |
|                         | 21-5230 | Transformer, 230V |         | ●       | ●       |
|                         | 21-5460 | Transformer, 460V |         |         | ●       |

### NOTES:

- 1) Reversing Contactor (03-11112), Used only on three phase operators. Single phase operators use relays.
- 2) Capacitor (29-10338), Capacitor Clamp (10-11421) and Resistor (29-2) used only on single phase operators.

# MGJ ELECTRICAL BOX - ILLUSTRATED PARTS



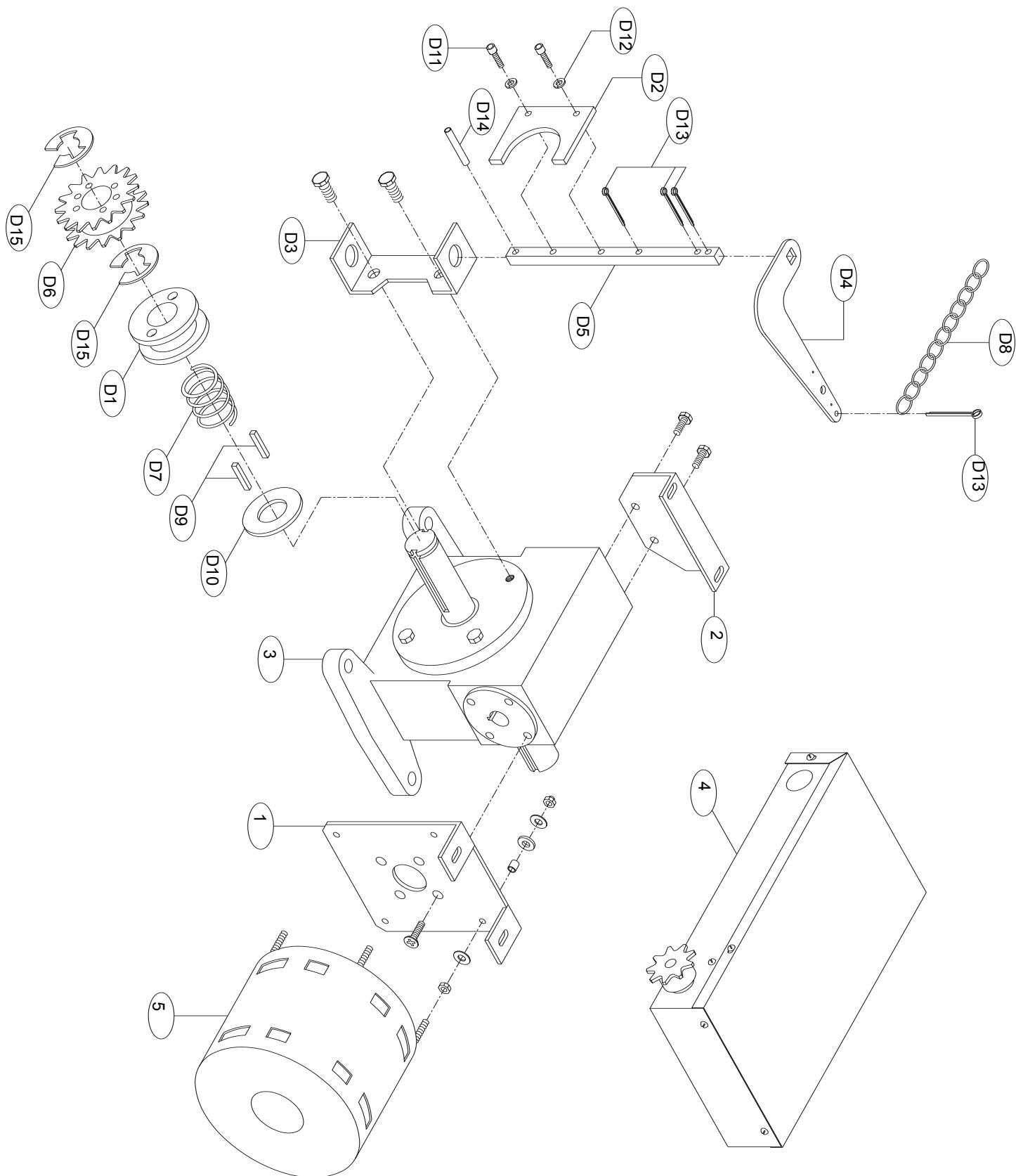
## REPLACEMENT PART LISTS – MODEL MGJ

Refer to the parts lists below for replacement kits available for your operator. If optional modifications and/or accessories are included with your operator, certain components may be added or removed from these lists. Individual components of each kit may not be available. Please consult a parts and service representative regarding availability of individual components. Refer to page 10 for all repair part ordering information.

| K75-12567 DISCONNECT ASSEMBLY KIT |             |                                |     |
|-----------------------------------|-------------|--------------------------------|-----|
| ITEM                              | PART #      | DESCRIPTION                    | QTY |
| D1                                | 07-11418    | Disconnect Hub                 | 1   |
| D2                                | 10-11023    | Bevel Gear Yoke                | 1   |
| D3                                | 10-11358    | Disconnect Support Bracket     | 1   |
| D4                                | 10-11394    | Release Lever                  | 1   |
| D5                                | 11-11361    | Disconnect Shaft MGJ           | 1   |
| D6                                | 15-11377    | Sprocket, 41B19 x 1.25 Bore    | 1   |
| D7                                | 18-10467    | Compression Spring             | 1   |
| D8                                | 19-8A-12    | 12ft. Of Sash Chain            | 1   |
| D9                                | 80-11416    | Disconnect Key 1/4 x 1/4 x 7/8 | 2   |
| D10                               | 80-206-11   | Washer, 1" I.D. x 1/16" Thick  | 1   |
| D11                               | 82-SH10-12  | Screw, #10-32 Hex Head Socket  | 2   |
| D12                               | 85-LS-10    | #10 Lock Washer ZP             | 2   |
| D13                               | 86-CP04-112 | Cotter Pin, 1/8" x 1-3/4" Long | 4   |
| D14                               | 86-RP04-100 | Roll Pin, 1/8" Dia. x 1" Long  | 1   |
| D15                               | 87-E-100    | E Ring, 1" Plated              | 2   |

| INDIVIDUAL PARTS |             |                      |     |
|------------------|-------------|----------------------|-----|
| ITEM             | PART #      | DESCRIPTION          | QTY |
| 1                | 10-11357    | Brake Mounting Plate | 1   |
| 2                | 10-11359    | Front Bracket        | 1   |
| 3                | 32-11414    | Gear Reducer, 45:1   | 1   |
| 4                | See Page 20 | Electrical Box       | 1   |
| 5                | See Page 20 | Motor                | 1   |

# ILLUSTRATED PARTS – MODEL MGJ



# MGJ CONTROL CONNECTION DIAGRAM

(Refer to page 15 for model LGJ control connections)

## IMPORTANT NOTES:

- 1) The 3-Button Control Station provided must be connected for operation.
- 2) If a STOP button is not used, a jumper must be placed between terminals 3 and 4.
- 3) Auxiliary control equipment may be any normally open two wire device such as pullswitch, single button, loop detector, card key or such device.

**ATTENTION ELECTRICIAN:**  
USE 16 GAUGE OR HEAVIER WIRE  
FOR ALL CONTROL CIRCUIT WIRING.

